HCD-CZ1/NAS-CZ1

SERVICE MANUAL

US Model
AEP Model
UK Model

Ver. 1.1 2005.08

- HCD-CZ1 is the amplifier, CD player and tuner section in NAS-CZ1.

Model Name Using Similar Mechanism	NEW
CD Base Unit Name	BU-K7BD81B
Optical Pick-up Block Name	KSM-213EDP

SPECIFICATIONS

Main unit

Amplifier section

For the U.S.A. model

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 6-ohm loads, both channels driven, from 120 – 10,000 Hz; rated 10 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milli watts to rated output.

European model:

DIN power output (rated): 7.5 + 7.5 watts (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference): 10 + 10 watts (6 ohms at 1 kHz, 10% THD)
Inputs
ANALOG IN (mini jack): Sensitivity 450 mV, impedance 10 kilohms
Outputs
PHONES (mini jack): accepts headphones with an impedance of 8 ohms or more

CD player section

System: Compact disc and digital audio system
Laser: Semiconductor laser (λ=770 – 810 nm) Emission duration: continuous
Frequency response: 2 Hz – 20 kHz (±0.5 dB)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range
U.S.A. model: 87.5 – 108.0 MHz (100-kHz step)
European models: 87.5 – 108.0 MHz (50-kHz step)
Antenna: FM lead antenna
Antenna terminals: 75 ohms unbalanced
Intermediate frequency: 10.7 MHz

AM tuner section

Tuning range
U.S.A. model: 530 – 1,710 kHz (with the tuning interval set at 10 kHz)
531 – 1,710 kHz (with the tuning interval set at 9 kHz)
European model: 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Antenna: AM loop antenna
Antenna terminals: External antenna terminal
Intermediate frequency: 450 kHz

Speaker section

Speaker system: 2-way, Acoustic Suspension type
Speaker units
Woofer: 9 cm dia., cone type
Tweeter: 2.5 cm dia., balanced-dome-type
Nominal impedance: 6 ohms

General

Power requirements
U.S.A. model: 120 V AC, 60 Hz
European model: 230 V AC, 50/60 Hz
Power consumption
U.S.A. model: 40 watts
European model: 40 watts
0.3 watts (in Power Saving mode)

Dimensions (w/h/d) incl. projecting parts and controls: Approx. 460 × 175 × 190 mm
Mass: Approx. 5.3 kg
Supplied accessories: Remote Commander with battery (1)
AM loop antenna (1)
FM lead antenna (1)
Network cable (1)
M-crew Server CD-ROM (1)

Design and specifications are subject to change without notice.

NETWORK AUDIO SYSTEM

9-879-721-02
2005H05-1
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Sony Corporation
Audio Group
Published by Sony Engineering Corporation

SONY

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

The following caution label is located inside the unit.

This appliance is classified as a CLASS 1 LASER product. This marking is located on the bottom exterior.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

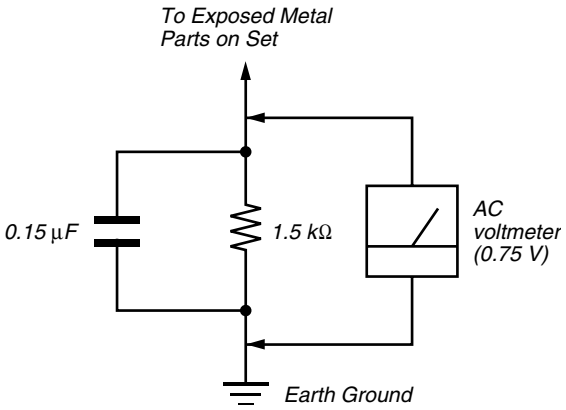

Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 ˚C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 ˚C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

During normal operation of the equipment, emission of the laser diode is prohibited unless the upper lid is closed while turning ON the S601. (push switch type)
The following checking method for the laser diode is operable.

- **Method**
  Emission of the laser diode is visually checked.

1. Open the upper lid.
2. Push the S601 as shown in Fig.1.

Note: Do not push the detection lever strongly, or it may be bent or damaged.

3. Press the ▶ button.
4. Check the object lens for confirming normal emission of the laser diode. If not emitting, there is a trouble in the automatic power control circuit or the optical pick-up.
   In this operation, the object lens will move up and down 2 times along with inward motion for the focus search.

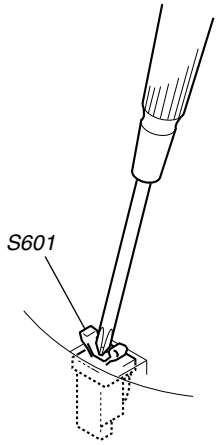


Fig.1 Method to push the S601

NOTES ON LASER DIODE EMISSION CHECK

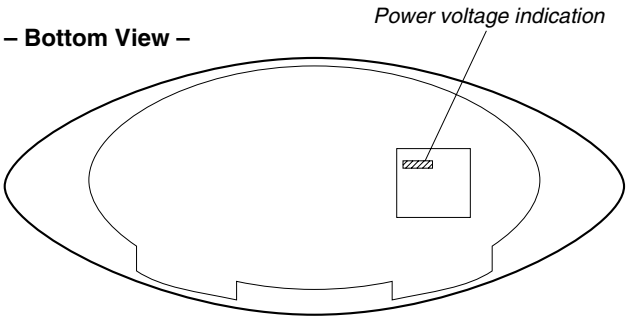
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

MODEL IDENTIFICATION

– Bottom View –



MODEL	Power Voltage Incdication
US model	AC: 120 V 60 Hz 25 W
AEP, UK models	AC: 230 V ∼ 50/60 Hz 25 W

NETWORK CHECK

1. Apparatuses And Materials Prepared

(1) Personal computer with OS "Windows XP" (must satisfy the conditions mentioned on pages 5 and 6 of Installation Instructions for M-crew Server ver 1.1 (refer to page 9 of this service manual))
(2) M-crew Server CD-ROM (for install)
(3) LAN cable
- Must comply with Category 5;
- If the set is directly connected to a personal computer: Use a cross cable;
- If the set is connected to a personal computer via router of hub;
- Use the LAN cable attached (part No. 1-827-478-11, 5m, straight) or LAN cable that complies with the Category 5.

2. Network Connection Check

2.1 Installing the M-crew Server

- Install the M-crew Server from the CD-ROM.(for the procedure, see pages 8 to 10 of the Installation Instructions for M-crew Server ver1.1 (refer to page 9 to 10 of this service Section manual)
- Use a sample music file created during the installation, if listening to the music.

2.2 Connecting the set to server, and operation check

(1) Start the personal computer in which the M-crew Server was installed.
(2) Connect the set to the Ethernet connector of personal computer with the LAN cable.
(3) Following "Selecting a server" on pages 13 and 14 of the Operating Instructions for NAS-CZ1 (refer to page 11 of this service manual), connect the set to the server.

2.3 Operation check

Following the pages 15-17 of the Operating Instructions for NAS-CZ1 (refer to page 11 to 12 of this service manual), check that a music file in the server can be played with the set.
If it cannot be played normally, see"3. Remedies in Case of Problems" in the next section.

3. Remedies In Case Of Problems

If a problem occurred in "2 Network Connection Check" mentioned above, first check the following two items:

(1) Problem and remedies (see pages 31 and 32 of the Operating Instructions for NAS-CZ1)
(2) Messages (see page 33 of the Operating Instructions for NAS-CZ1 (refer to page 8 of this service manual))

If the above two items cannot cope with the problem, take the following procedure for checking

3.1 Errors In The Midway Of Server Connection

3.1.1 NETWORK function does not start

If the NETWORK function does not start though the NETWORK and USER PROFILE 1 to 5 buttons on the set is pressed.

(1) Faulty connection between CN651 of MAIN board and CN501 of ETHER board
→ Check if the connector is inserted obliquely of disconnected.
(2) Faulty circuits of ETHER board
→ Replace the ETHER board and check the operation.
If the board is faulty, check the soldering of power line, communication line, etc.
- CN501
- FB505, FB508-511, FB515-521
- IC506
- R530, 537

3.1.2 NETWORK function starts but access to network failed or server is not found

(1) "Check Network" is displayed
→ Replace the ETHER board and check the operation.
If the board is faulty, the PHY IC (IC501) on the ETHER board may be defective.

3.1.3 "Configuring" is displayed for a long time

(1) Check if the connectable serve has started.
→ If the server has not started yet, start it.
(2) It will take 1 to 2 minutes for Windows to automatically get IP address if the set is connected to a personal computer directly and IP address acquisition method is set to "automatic". For this reason, "Configuring" may be displayed for a long time.
→ The use of a router with DHCP, for instance, can shorten the time.
(3) Communication with the server is disabled and "Configuring" will be displayed for a long time, if network setting of the set is different from that of personal computer.
→ Make correct network setting.
Example:
- Set the IP address acquisition of both the set and personal computer to "automatic".
- If the IP address acquisition of either the set or personal computer or both of them is set to "static", check that the input field of IP address where the subnet mask"255" is set is same between the set and personal computer. If the subnet mask is "255.255.255.0", three input fields from the top must be same between the set and personal computer.

3.1.4 "No Server" is displayed

(1) If the network setting is different between the set and personal computer, "Configuring" is displayed for a long time and then finally "No Server" is displayed.
→ See the item of 3.1.3(3).

3.2 Errors After Serve Connection

3.2.1 "Loading" is displayed for a long time

(1) When the set is connected to the M-crew Server for the first time, the M-crew Server identifies the HCD-CZ1 individually and creates the profile information in the personal computer, and therefore it will take time for "Loading"
→ wait for a while as it is until "loading" finishes.

(2) When the set is connected to a DLNA server other than M-crew server, if many contents have been stored in that server, it will take time for "loading".
→ Though "Loading" will finish after a while, it is recommended that the music be imported with the M-crew Server and the M-crew Server be used as a server.

3.2.2 "Server Error" is displayed

(1) If the load on personal computer is large, the communication with the set will not finish within the specified time, resulting in "Serve Error" Display.
→ Reduce the load on personal computer, and then retry.

(2) "Server Error" will be displayed if the server information is refreshed (addition or deletion of music) when you are listening to the music with the set.
→ Reconnect the set to the server.

3.3 Errors When You Are Listening To The Music

3.3.1 Sounds are interrupted

(1) The baud rate will be reduced in the wireless connection
→ Cable connection is recommended.

(2) Check if the music itself registered to the server is interrupted.
→ Certain ripping software may not be able to encode the music-to-music joints continuously.

3.3.2 Some functions cannot be used

(1) If a server other than M-crew Server is used, the following functions cannot be used. Following the pages 13 and 14 of the Operating Instructions for NAS-CZ1 (refer to page 11 of this service manual), select the M-crew Server.
- Web Radio
- Library Mode switching
- Library Search
- Favorite
- User Profile

3.3.3 "Cannot Play" is displayed

(1) If the server does not convert the music into LPCM format for streaming, the set cannot play that music.
→ You can play the contents supported by the M-crew Server, if the set is connected to the M-crew Server.

(2) The contents with DRM may not be processed for streaming.
→ The contents with DRM are not supported.

(3) "Cannot Play" will be displayed if the contents themselves are deleted though the music contents are registered to the server.

3.3.4 Operation becomes slow

(1) If it takes time to communicate with the server, the operation of the set may become slow according to that time.

- **Operating Instrution for NAS-CZ1 (extract)**

Connecting power cord

Connect the power cord to a wall outlet.

The demonstration appears in the display. When you press I/⏻, the system turns on and the demonstration automatically ends.

To turn off the demonstration display

Press DISPLAY while the system is off (page 28).

Enjoying NETWORK function

You can listen to music stored on the connected media server with this system.

Selecting a server

You can select your desired Media server to be your default server. Doing so prevents you from having to make the selection each time you use NETWORK function.

Tip

You can listen to music stored on DLNA-compliant servers with this system.

1. **Start up your desired Media server on your computer.**
2. **Press I/⏻ to turn on the system.**
3. **Press NETWORK.**

   While "Configuring" is flashing in the display, the display is automatically setting. Do not turn off the power during this time.
4. **"MEDIA SERVERS?" appears, then press ENTER.**
5. **Press I◄◄ or ►►I repeatedly to select the desired Media server, then press ENTER.**

   The selected server is set to the default server.

When selecting the M-crew Server as a media server

The following marks appears in the display.

* These marks also appear when using a server other than M-crew Server.

Note

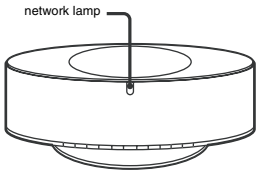
You can use the following functions only when using the M-crew Server as a media server.

– MUSIC LIBRARY
– LIBRARY SEARCH
– PLAYLIST MODE
– FAVORITE PLAYLIST
– User Profile
– WEB RADIO

Tip

You can redo the default server selection to select a different server (page 19).

Checking the network status



Network lamp	System status
flashes slowly	The system is communicating with the server.
lights up	The NETWORK function is being used.
flashes quickly	An error has occurred.

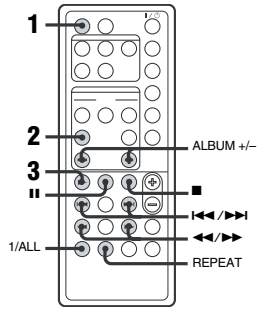
Tip

When the network lamp flashes quickly, a message also appears in the display at this time (see page 33). To check the message again, press ENTER or another button while [NET] appears in the display.

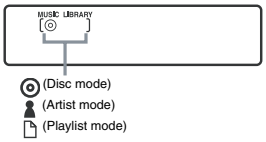
MUSIC LIBRARY

Listening to music stored on your computer

You can listen to music stored on your computer through the system's speaker. Make sure you have registered audio data to the media server.



1. **Press NETWORK repeatedly to switch the function to MUSIC LIBRARY.**



2. **Press LIBRARY MODE repeatedly until the mode you want appears.**

Select	To play
(Disc mode)	Mode for listening to albums sorted according to the disc information of the tracks
(Artist mode)	Mode for listening to albums sorted according to the artist information of the tracks
(Playlist mode)	Mode for listening to playlists created by M-crew Server and the favorite playlists registered on the M-crew Server.

3. **Press ►.**

Note

Some time may be required before playback starts depending on the number of tracks registered to the server.

Other operations

To	Do this
Stop play	Press ■.
Pause	Press II. Press again to resume play.
Select an album	Press ALBUM +/– repeatedly.
Select a track	Press I◄◄ or ►►I repeatedly.
Find a point in a track	Keep pressing ◄◄ or ►► during playback and release it at the desired point.
Play repeatedly (Repeat Play)	Press REPEAT repeatedly during playback until "REP" or "REP1" appears. REP: For all registered tracks. REP1: For a single track only. To cancel Repeat Play, press REPEAT repeatedly until both "REP" and "REP1" disappear.
Play all tracks only in the selected album	Press 1/ALL repeatedly until "1ALBM" appears. To play all registered tracks, press 1/ALL repeatedly until "ALL ALBM" appears.

Note

The II and ◄◄/►► buttons may not work for some tracks when using a server other than M-crew Server.

Searching for an album

– L IBRARY SEARCH

You can search for an album in either DISC MODE or ARTIST MODE.

1. **Press NETWORK repeatedly to switch the function to MUSIC LIBRARY.**
2. **Press LIBRARY MODE repeatedly until "(Disc mode)" or "(Artist mode)" appears.**
3. **Press LIBRARY SEARCH.**

   "LIBRARY SEARCH" appears about a second, then "SEARCH" lights up.
4. **Repeat the following to search for the album.**

To do	Press
Change the character at the cursor position (flashing character)	I◄◄ /►►I repeatedly
Move the cursor position	CURSOR← or CURSOR→ repeatedly
Display albums with titles that match the characters from the start to the cursor position	ALBUM +/– repeatedly

5. **Press ENTER or ►.**

   Playback starts from the first track in the selected album.

Notes

Y ou cannot use the Library Search function with a media server other than the supplied M-crew Server.

Y ou cannot search for an album in PLAYLIST MODE.

Listening to music in a play list

– P LAYLIST

You can listen to tracks registered in the PLAYLIST album on your computer.

1. **Press NETWORK repeatedly to switch the function to MUSIC LIBRARY.**
2. **Press LIBRARY MODE repeatedly until "(Playlist mode)" appears.**
3. **Press ALBUM +/– repeatedly to select a desired playlist.**
4. **Press ►.**

Note

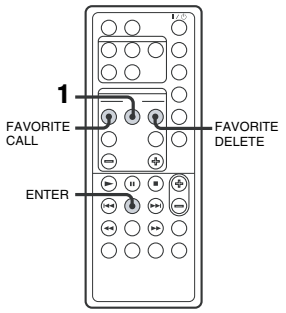
Some time you may not be able to use the Playlist library function with a media server other than the supplied M-crew Server.

Listening to music in a favorite list

– FAVORITE PLAYLIST Registration/ FAVORITE PLAYLIST Play

What is a FAVORITE PLAYLIST?

By registering tracks on your computer to a favorite list using this system, you can play back only the tracks you want to listen to. One favorite playlist can be created for each profile, and each favorite playlist can contain up to 100 tracks.



To register tracks to a favorite playlist and playing

1 During the playback or play pause of the desired track, press FAVORITE ADD. "FAVORITE" appears.

2 After "FAVORITE" disappears, repeat step 1 to register the desired tracks.

Playing favorite playlist

1 Press NETWORK repeatedly to switch the function to MUSIC LIBRARY.

2 Press FAVORITE CALL.

Play starts.

Tip

You can also play the favorite playlist through the following procedure:

1. Press LIBRARY MODE repeatedly until "🗋 (Playlist mode)" appears.
2. Press ALBUM +/– repeatedly until "FAVORITE" appears.

To delete tracks from a favorite list

1 Press ► or ❚❚ to play or pause the track you want to delete from a favorite playlist.

2 Press FAVORITE DELETE. "DELETE?" appears.

3 Press ENTER. "Deleting" appears, then "Complete!" appears.

Notes

- If you edit a track in an album that is registered to a FAVORITE PLAYLIST on your computer, the track is erased from the FAVORITE PLAYLIST automatically. (except when you changed the track name)
- During the playback of a track in a favorite playlist, you cannot press FAVORITE ADD to register the track to a favorite playlist.
- When you press FAVORITE DELETE, the track is erased from the FAVORITE PLAYLIST but remains in the Music Library.

Troubleshooting

Problems and remedies

Should you encounter a problem with your system, do the following:

1 Make sure the power cord is correctly and firmly connected.

2 Find your problem in the troubleshooting checklist below and take the indicated corrective action.

If the problem persists after doing all of the above, consult your nearest Sony dealer.

General

The display starts flashing as soon as you plug in the power cord even though you have not turned on the system (see step 2 of "Connecting power cord" (page 13)).

Press I/⏻ while the system is off. The demonstration disappears.

The radio presetting is canceled.

Redo "Presetting radio stations" (page 24).

There is no sound.

Press VOL + or VOLUME + on the system.
Make sure the headphones are not connected.

There is severe hum or noise.

Move the system away from the source of noise.
Connect the system to a different wall outlet.
Install a noise filter (commercially available) to the power cord.

The remote does not function.

Remove the obstacle.
Move the remote closer to the system.
Point the remote at the system's sensor.
Replace the CR2025 battery.
Locate the system away from the fluorescent light.

The system can not be turned on even though you have pressed I/⏻.

Make sure the power cord is connected to a wall outlet.

The color irregularity on a TV screen appears.

Turn off the TV set once, then turn it on after 15 to 30 minutes. If the color irregularity still persists, place the speakers farther away from the TV set.

Network

The desired server cannot be found.

- Check the network settings on your computer.
- Start up the server you want to use on your computer.
- Check the network settings.
- Set the broadband router or hub again correctly. For details, see the instruction manual of the broadband router or hub.
- When setting a firewall other than that provided with the OS, refer to Troubleshooting in the Installation Manual included on the supplied CD-ROM.
- Reduce the number of servers that can be connected to 10 servers or less (page 21).
- Replace the Ethernet cable with a new one.
- Follow the procedure below and reconnect to the server.
  1. Select "MEDIA SERVERS?" in the network menu (page 19), then press ENTER.
  2. Press I◄◄ /►►I repeatedly to select the desired media server, then press ENTER.

Tracks registered to a server cannot be selected by the system.

- Track selection, playback and other operations on the system side may not be possible for servers other than M-crew Server (page 13).

The sound skips.

Sound skipping may occur in the following cases:
– When music is being recorded onto the server
– When the computer is running many applications
– When the network status is crowded
– When multiple systems are performing playback simultaneously

Track names are not displayed.

- Some types of input characters cannot be displayed by the system, even if they can be registered and displayed on the server.

Operation commands take time.

- Depending on the condition of the server, it may take a while until operation proceeds. For example, when there is no response after pressing ◄◄/►►, keep pressing ◄◄/►► for a while. Afterwards, operation sould begin.

CD/MP3 player

Abnormal noise is produced.

- Check whether a disc that the system cannot play is loaded.

Play does not start.

- Check whether a disc is loaded. The disc indicator lights when a disc is loaded.
- Wipe the disc clean (page 34).
- Replace the disc.
- Place a disc that this system can play.
- Place the disc correctly.
- Remove the disc and wipe away the moisture on the disc, then leave the system turned on for a few hours until the moisture evaporates.
- Press ► to start play.

The sound skips.

- Wipe the disc clean (page 34).
- Replace the disc.
- Try moving the system to a place without vibration (e.g., on top of a stable stand).

MP3 audio track cannot be played back.

- Recording was not performed according to the ISO9660 level 1 or level 2 format, or Joliet in the expansion format.
- The MP3 audio track does not have the extension ".MP3".
- The data is not stored in MP3 format.
- Discs containing files other than MPEG1, 2, 2.5 Audio Layer-3 files cannot be played.

MP3 audio tracks take longer to play back than others.

- After the system reads all tracks on the discs, playback may take more time than usual if:
  – the number of albums or tracks on the disc is very large.
  – the album and track organization structure is very complex.

The album title, track title and ID3 tag do not appear correctly.

- Use a disc that conforms with ISO9660 level 1, level 2, or Joliet in the expansion format.
- The disc ID3 tag is not ver. 1 or ver. 2.

Tuner

Severe hum or noise.
Stations cannot be received.

- Set the proper band and frequency (page 24).
- Connect the antenna properly (page 11).
- Find a place and an orientation that provide good reception, then set up the antenna again. If you cannot obtain good reception, we recommend you connect a commercially available external antenna.
- The supplied FM lead antenna receives signals along its entire length, so make sure you extend it fully.
- Locate the antennas as far away from the speaker cords as possible.
- Consult your nearest Sony dealer if the supplied AM antenna has come off the plastic stand.
- Try turning off surrounding electrical equipment.

A stereo FM program cannot be received in stereo.

- Press FM MODE until "MONO" disappears.

Optional components

There is no sound.

- Refer to General items "There is no sound." and check the condition of the system.
- Connect the component properly (page 30) while checking:
  – if the cords are connected properly.
  – if the cord plugs are firmly inserted all the way.
- Turn on the connected component.
- Refer to the operating instructions supplied with the connected component and start playing.
- Press FUNCTION repeatedly to select "ANALOG IN" (page 30).

The sound is distorted.

- Set the volume of the connected component lower.

If the system still does not operate properly after performing the above measures, reset the system as follows:

1 Disconnect the power cord.

2 Reconnect the power cord.

3 Press I/⏻ to turn on the system.

4 Press ■, USER PROFILE 5 and POWER, on the system at the same time.

The system is reset to the factory settings. You should set the settings you made, such as the preset stations.

Messages

If a message appears while using the system, follow the procedures below to correct the problem.

Network

Cannot Play

- The track cannot be played in the following cases:
  – Sampling Rate is other than 32 kHz, 44.1 kHz, 48 kHz.
  – The track is not being streamed by linear PCM.
  – The track is other than one channel or two channel.
  – The track sampling bits are other than 16 bits.
  – The server status is busy.

Check Network

- Check that the Ethernet cable between the system and the hub or router is firmly connected.
- Check that the hub or router is turned on.

IP Conflict

- Set the IP addresses of the system and other devices on the network so that there is no duplication (page 20).

No album

- Register the track as instructed by the operation manual of the connected server.
- Follow the procedure below and reconnect to the server.
  1. Select "MEDIA SERVERS?" in the network menu (page 19), then press ENTER.
  2. Press I◄◄ /►►I repeatedly to select the desired media server, then press ENTER.

No Server

- Start up the server. M-crew Server can be started up by the following method:
  Right-click the task tray icon, then click "Start Music Service" in the menu.
- M-crew Server may not be recognizing the system. Follow the procedure below and check whether M-crew Server is recognizing the system:
  1. Click [Start] – [All Programs] – [M-crew Server] – [TOOLS] – [EQUIPMENT LIST] in that order.
  2. If the server name is not present in the list that appears in step 1, device registration must be performed. For details, see the Help or Install Manual within M-crew Server.
- When setting a firewall other than that provided with the OS, refer to Troubleshooting in the Installation Manual included on the supplied CD-ROM.
- Perform the TCP/IP settings correctly for the system and the computer (page 20).

Select Server

- Follow the procedure below and reconnect to the server.
  1. Select "MEDIA SERVERS?" in the network menu (page 19), then press ENTER.
  2. Press I◄◄ /►►I repeatedly to select the desired media server, then press ENTER.

Server Error

- Follow the procedure below and reconnect to the server.
  1. Select "MEDIA SERVERS?" in the network menu (page 19), then press ENTER.
  2. Press I◄◄ /►►I repeatedly to select the desired media server, then press ENTER.

Server Close

- Start up the server. M-crew Server can be started up by the following method:
  Right-click the task tray icon, then click "Start Music Service" in the menu.
- When you want to change the computer's network settings, restart the server on this system. This message disappears after a short time.

WebRadio Error

- Register a station that can be played back on M-crew Server.
- Connection may be difficult depending on the internet line status. Wait a bit and then perform the operation again.

CD/MP3

No Disc

- There is no disc in the player.

- **Installation Instrution for M-crew Server ver1.1 (extract)**

System Requirements

The following software and hardware are required in order to be able to run M-crew Server.

☐ **A PC/AT compatible that satisfies the performance requirements described below.**

M-crew Server does not run in an Apple Macintosh environment.

– CPU*: Intel Pentium III 600 MHz (1 GHz or more is recommended) or Celeron 600 MHz (1 GHz or more is recommended) or better
– RAM: 256 MB or more is recommended
– Video board and display driver: Must be capable of XGA (1024 × 768 pixels) display with at least 65,536 colors.
– Free hard disk space required for installation: At least 20 MB (includes M-crew Server and the help, etc.)
– CD-ROM or DVD drive (for software installation and CD recording)
– Available LAN jack: At least one
– Sound board

☐ **OS: Windows XP Home Edition/Windows XP Professional/Windows XP Media Center Edition 2004/Windows XP Media Center Edition 2005**

M-crew Server does not run in a Microsoft Windows 3.1, Windows 95, Windows 98, Windows ME, Windows NT or Windows 2000 Professional environment.

When installing, log on as the administrator.

☐ **Internet access (for Gracenote access and WEB RADIO)**

☐ **Display: XGA (1024 × 768 pixels)**

Must be able to display at least 65,536 colors.

☐ **Used Language: English/German/French**

* Operation is guaranteed only with Intel Pentium and Celeron CPUs.

Notes

- Operations are not guaranteed for all the recommended computer environments mentioned above.
- Operation is not assured in personally constructed PCs or operating systems and an environment upgraded to the other operating systems.
- Original brand and home_made personal computers do not apply.

Before installing the software

Do not connect the system to your computer before the installation is completed!

Close down all applications running on the computer before installing the software!

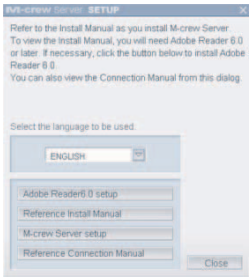
Be sure to log on through a user name which belongs to the computer's administrator to install the software.

Installing

Installing M-crew Server

1 Turn on your computer and allow Windows to load.

2 Insert the supplied CD-ROM into the CD-ROM drive of your computer.
The “M-crew Server SETUP” dialog box appears.


M-crew Server SETUP
Refer to the Install Manual as you install M-crew Server.
To view the Install Manual, you will need Adobe Reader 6.0 or later. If necessary, click the button below to install Adobe Reader 6.0.
You can also view the Connection Manual from this dialog.
Select the language to be used.
ENGLISH
Adobe Reader6.0 setup
Reference Install Manual
M-crew Server setup
Reference Connection Manual
Close

Note
If the dialog box does not open, double-click CD-ROM (Setup.exe) icon.

3 Select the language to be used.

4 Click [M-crew Server setup].
The installation starts.

Note
If “.Net Framework” is not installed on your computer, “.NET Framework Installer” dialog box appears. Click [Install] to install “.Net Framework 1.1” and follow the displayed instructions.

5 Follow the on-screen messages.

6 After the installation is completed, click [Reboot] to restart your computer.

Be sure to restart your computer only after the installation has been completed.
After restarting your computer, the “AUTO LINK FOLDER SETUP” window appears.

For Windows XP SP2

The “Windows Security Alert” dialog box appears.
Click [Unblock] to unblock the program.
Check that [Name] is “M-crew Server task tray icon”, then click the [Unblock] button. If you click the [Keep Blocking] button, you will be unable to use M-crew Server (page 20).

Windows Security Alert
To help protect your computer, Windows Firewall has blocked some features of this program.
Do you want to keep blocking this program?
Name: M-crew Server task tray icon
Publisher: Sony Corporation
Keep Blocking
Unblock
Ask Me Later
Windows Firewall has blocked this program from accepting connections from the Internet or a network. If you recognize the program or trust the publisher, you can unblock it. When should I unblock a program?

7 Click [NEXT].

The contents located on the path set to ON by the checkbox are loaded automatically. When not making this setting, click the [Skip] button.
The connection manual appears automatically.

For Windows XP SP2

See “Making the ICF Settings” on page 12 when the “ICF Setting” dialog opens.

8 Confirm the optimum connection method, and connect the system to your computer.

9 Turn on the system. The system is registered automatically on your computer. To register the system on your computer manually, see “Registering the system on your computer manually” on page 14.

Notes

- When SP2 has not been applied to Windows XP, M-crew Server may not operate properly unless the latest Windows Security Update is applied. In these cases, apply the latest Windows Update (KB885835) or check the contents noted at the following website and take the necessary measures.
  http://www.sony.net/Products/OpenMG/support/840987/
- The M-crew Server software uses the installed folders, so do not delete, move, or edit any of the installed folders. Managing these folders like general files on Windows Explorer could cause the contents to become unstable or corrupted.
- While the installation is still in progress, do not interrupt the operation or take the CD-ROM out of the CD-ROM drive. Doing so may render it impossible to install the software thereafter.

Tip

The following modules are installed.

Microsoft Module[1)]	.Net Framework Version1.1 Microsoft Data Access Components (MDAC) 2.8 (as necessary) Windows MediaFormatSDK9 Runtime
OpenMG SDK	OpenMG SDK 3.4.01 OpenMG Limited Patch Other related modules
CDDB2[2)]	CDDB2 Module
Music Server	Mcrew Music Server Other related modules
M-crew Server	M-crew Server Other related modules

[1)]Refer to the Microsoft home page and other materials for a detailed description of these Microsoft Modules.
[2)]Refer to www.gracenote.com for a detailed description of CDDB2.

Other Information

Starting up M-crew Server

Click [Start] – [All Programs] – [M-crew Server] – [M-crew Server] in that order.
Or, double-click the M-crew Server icon on the taskbar.
Or, right-click the M-crew Server icon on the taskbar, and select “M-crew Server”.

Making the ICF Settings

When the M-crew Server icon in the taskbar appears as , make the ICF (Internet Connection Firewall) settings.

1 Click [Start] – [All Programs] – [M-crew Server] – [TOOLS] – [ICF Settings] in that order.
“ICF SETTINGS” window appears.

2 Click the port with NG status.
A dropdown menu with port numbers appears.
If “OK” appears for all server status items, there is no need to make the ICF settings. Click [Close] to close the window.

3 Select any different port number.

4 Click [Apply].
“OK” or “NG” appears.

5 Repeat steps 2 to 4 until “OK” appears for all status items.

6 Click [Close].

Tips

- Windows XP and later versions have a simple firewall function as a standard feature. This firewall function is called “ICF”, and lets users limit communications between home networks or small-scale office networks and the internet. When this firewall is enabled, the firewall must be set to allow communication of specific ports and programs in order to perform communication between M-crew Server and this system. These settings are made at the ICF SETTINGS window. However, note that making these settings may expose your computer to illicit access.
- When communication is limited by firewall software other than the OS functions, enable the following .exe files. For a detailed description of the setting method, see the operation manual of the firewall software used.
  - McrewServer.exe
  - McTaskTray.exe
  - McService.exe
  - McFolderWatcher.exe
  - McrewHttpService.exe
  - McrewUPnPService.exe

Registering the system on your computer manually

When the system is connected to your computer after installing the M-crew Server, the system is registered automatically on your computer. Register the system on your computer manually for higher security.

1 Turn on the system.

2 Press NETWORK on the remote repeatedly to switch the function to MUSIC LIBRARY or WEB RADIO.

3 Press NETWORK MENU on the remote.

4 Press ⏮ or ⏭ on the remote repeatedly until “REGISTRATION?” appears, then press ENTER on the remote.

The count down display appears in the display of the system.

5 Click [Start] – [All Programs] – [M-crew Server] – [TOOLS] – [EQUIPMENT LIST] in that order.

“M-crew Server EQUIPMENT LIST” dialog box appears on your computer screen.

For Windows XP SP2

The “Windows Security Alert” dialog box appears.
Check that [Name] is “MCMachineRegist.exe”, then click the [Unblock] button. If you click the [Keep Blocking] button, you will be unable to use M-crew Server (page 20).

6 Set “Equipment selection mode:” to “Manual”, and click [Add] on your computer.

The registration starts.
“Complete!” appears in the display of the system when the registration is complete.

Uninstalling the M-crew Server software

Log on through a user name which belongs to the computer’s administrator and follow the procedures below.

Refer to the operating instructions of your computer for details on logging on as a user name which belongs to the computer’s administrator.

1 Stop the service from the task tray icon.
Right-click the task tray icon, then click [Stop Music Service] in the menu.

The task tray icon display becomes dim.

2 Hide the task tray icon.
Right-click the task tray icon, then click [Hide task tray icon] in the menu.

The task tray icon display disappears.

3 When Windows XP is in Classic View, switch to Category View, then click [Start] – [Control Panel] – [Add or Remove Programs] in that order.

4 Select [M-crew Server], and click [Change/Remove].

5 Select [Mcrew Music Server], and click [Change/Remove].

6 Reboot the computer.

Notes

- When uninstalling M-crew Server, a command prompt window appears. Command prompt processing may take some time. However, the uninstall work is proceeding during this time, so do not click the [Cancel] button in the "Installsheild" dialog.
- "OpenMG Limited Patch ***" and "OpenMG Secure Module ***" may be used by other software (SonicStage, VAIO Media, etc.). If Open MG SDK is not being used, uninstall "OpenMG Limited Patch ***" and "OpenMG Secure Module ***" in the "Add or Remove Programs" window.

Troubleshooting

Should you encounter a problem while installing or uninstalling M-crew Server, use the following troubleshooting to remedy the problem. If the problem persists after checking all the below items, fill in the following table and then consult your nearest Sony dealer.
In case an error message appears, it is recommended that you write it down.

Computer • Manufacturer: • Model: • Type: Desktop type / Laptop type
Name of operating system:
RAM:
Hard disk drive (containing M-crew Server and audio data) • Capacity of the drive: • Free space:
Installed folder containing M-crew Server (if other than the default folder)[1] • Location of the installed folder:
Version of the software (M-crew Server Ver.1.0)[2]:
Error Message (if one appeared):
If an externally connected CD-ROM drive is used • Manufacturer: • Model: • Type: CD-ROM / CD-R/RW / DVD-ROM / Other ( ) • Type of connection to the computer: PC card / USB / IEEE1394 / Other ( )
If another device with USB connection is used • Name of the device (or devices):

1) If you do not specify the destination, the software is installed at C:\Program Files\Mcrewserver.

2) To check the M-crew Server software version, right-click in the M-crew Server window and select "About M-crew Server", or see the version information on the supplied CD-ROM.

M-crew Server does not start up

- **Server ports do not open.**

1 Click [Start] – [All Programs] – [M-crew Server] – [TOOLS] – [ICF Settings] in that order.
"ICF SETTINGS" window appears.

2 Click the port with NG status.
A dropdown menu with port numbers appears.

3 Select any different port number.

4 Click [Apply].
"OK" or "NG" appears.

5 Repeat steps 2 to 4 until "OK" appears for all status items.

6 Click [Close].

Installation was not successful

- **Be sure to close down all applications before installing the software.**
  If you start the installation while other programs are running, a malfunction may occur. This is especially true for programs that require large amounts of system resources, such as virus-check software.
- **Make sure your computer has enough hard disk drive space.**
  150 MB of free space or more on the hard disk drive is required. If your computer does not have enough space, the installation may not be possible.
- **The [Keep Blocking] button was clicked at the "Windows Security Alert" dialog box when using Windows XP SP2.**

1 Click [Start] – [Control Panel] in that order.
"Control Panel" window appears.

2 When Windows XP is in Category view, switch to Classic view, then click [Network Connections].

3 Click "Change Window Firewall Settings" on the left edge.
"Windows Firewall" dialog appears.

4 Click the [Exceptions] tab.

5 Click [Add Program].
"Add a program" dialog appears.

6 Select “M-crew Server task tray icon” from the “Programs” list, then click the [OK] button.
Make sure that the M-crew Server task tray icon appears and is checked in the “Program and service” list in the “Exceptions” tab of the “Windows Firewall” dialog.

7 Click [OK].

- **If the installation is still unsuccessful after all that you have done.**

1 Click [Start] – [Control Panel] in that order.
“Control Panel” window appears.

2 When Windows XP is in Classic View, switch to Category View, then click [Add or Remove Programs].
“Add or Remove Programs” window appears.

3 Select and click “M-crew Server” in the “Currently Installed Programs” list.
When “M-crew Server” does not appear in the “Currently Installed Programs” list, click [Change/Remove] and proceed to step 6.

4 Click [Change/Remove].

5 Follow the on-screen messages and restart your computer.

6 When the computer restarts, installation again. (See “Installing M-crew Server” on page 8.)

- **If the installation seems to be stopped**

The installation may take 10 minutes or more depending on your computer or CD-ROM drive. During the installation, watch out for the occurrence of any of the following problems.

- **The progress bar on the display is not moving. The access lamp has not lit for a few minutes.**

The installation is progressing normally. Please wait.

“No Server” appears on the NAS-CZ1.

- **M-crew Server may not be recognizing the system.**

When communication is limited by firewall software other than the OS functions, enable the following .exe files. For a detailed description of the setting method, see the operation manual of the firewall software used.
– McrewServer.exe
– McTaskTray.exe
– McService.exe
– McFolderWatcher.exe
– McrewHttpService.exe
– McrewUPnPService.exe

There is no sound from the system

- **This M-crew Server is not selected by the server selection on the system side.**

For details, refer to the operating instructions provided with the system.

- **The server side system registration is not correct.**

1 Check the connection between the system and your computer. To check the optimum connection method, click [Start] – [All Programs] – [M-crew Server] – [MANUAL] – [Connection Manual] in that order.

2 Turn on the system.
The system is registered automatically on your computer.

The server side must also be set when performing system registration manually. See “Registering the system on your computer manually” on page 14.

- **Make sure the system is properly connected. (Refer to the connection manual. Also check your computer's network settings.)**
- **Check for the M-crew Server task tray icon.**

Refer to the startup instructions. Also refer to “Task tray icon not present” on page 24.

- **Make sure the M-crew Server task tray icon is lighting.**

Refer to the update instructions. Also refer to “Task tray icon darkened” on page 24.

- **Make sure the system is registered in M-crew Server.**

Refer to the instructions for confirming registration.

- **Restart your computer.**
- **Cannot listen to Web Radio**

Make sure that the computer’s internet access is correct.
If using a proxy server, make sure that the proxy server is set correctly in the “PROXY SETTING” dialog box.

Task tray icon not present

- **Follow the procedure below to display the icon again. Click [Start] – [All Programs] – [M-crew Server] – [TOOLS] – [M-crew Server task tray icon] in that order.**
- **Uninstall M-crew Server and re-install it.**

Task tray icon darkened

The service is not active. Troubleshoot it by checking the following items.

- **Right-click the task tray icon. Click [Start Music Service].**
- **Click [Start] – [All Programs] – [M-crew Server] – [TOOLS] – [ICF Settings] in that order and check the port.**
- **Uninstall M-crew Server and re-install it.**

Cannot uninstall M-crew Server

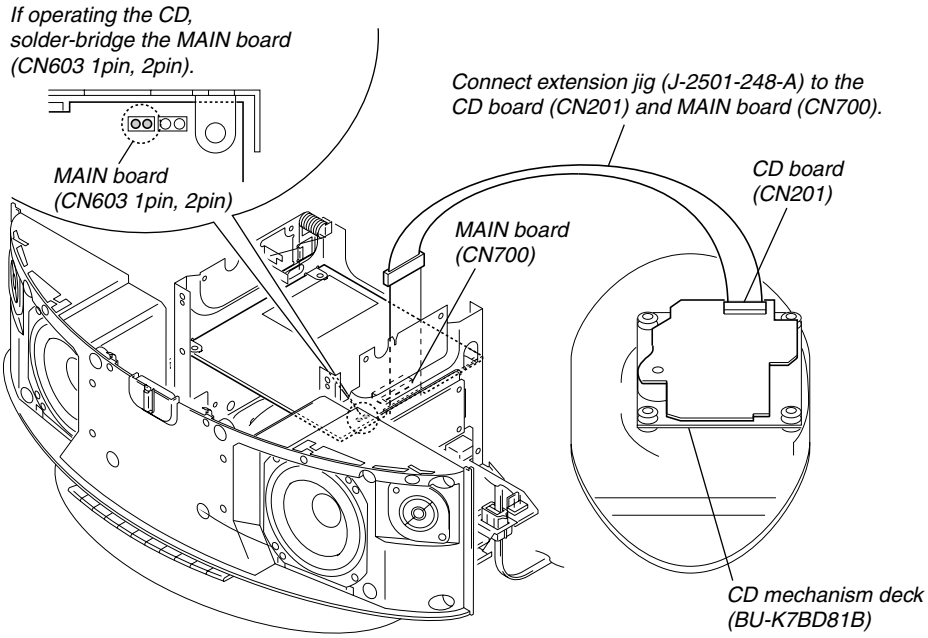
1 Stop the service from the task tray icon.
Right-click the task tray icon, then click “Stop Music Service” in the menu.

2 Hide the task tray icon.
Right-click the task tray icon, then click [Hide Task Tray icon] in the menu.

3 When Windows XP is in Classic View, switch to Category View, then click [Start] – [Control Panel] – [Add or Remove Programs] in that order.
Select the desired program and remove it.

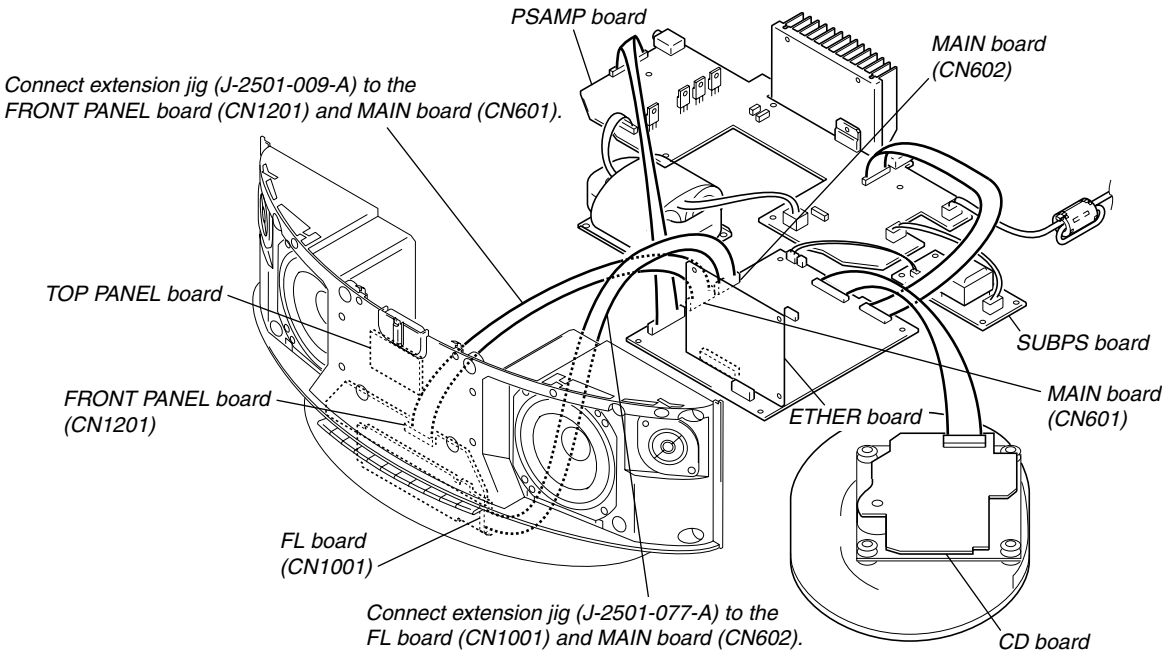
CD MECHANISM DECK (BU-K7BD81B) SERVICE POSITION

• In checking the CD mechanism deck (BU-K7BD81B), prepare extension jig (Part No. J-2501-248-A: 1mm Pitch, 27 cores, Length 300mm).



ALL BOARDS SERVICE POSITION

• In checking the FL board FRONT PANEL board and MAIN boards, prepare two extension jigs (Part No. J-2501-077-A: 1.25mm Pitch, 13 cores, Length 300mm and Part No. J-2501-009-A: 1.25mm Pitch, 15 cores, Length 300mm).



SECTION 2
GENERAL

This section is extracted from instruction manual.

- **Location of controlls**

Main unit

ALPHABETICAL ORDER

A – O

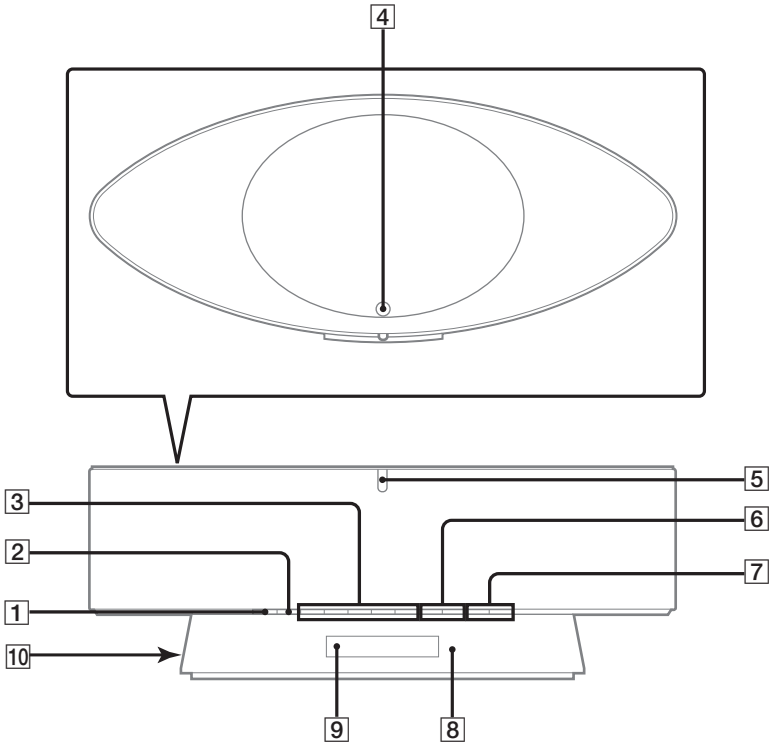
Display window [9]
FUNCTION [2]
NETWORK [5]
NETWORK lamp [5]

P – Z

PHONES jack [10]
Remote sensor [8]
USER PROFILE 1 – 5 [3]
VOL +/– [7]

BUTTON DESCRIPTIONS

I/⏻ (On/Standby) [1]
⏏ PUSH OPEN [4]
► (play) [6]
■ (stop) [6]



Remote control

ALPHABETICAL ORDER

A – M

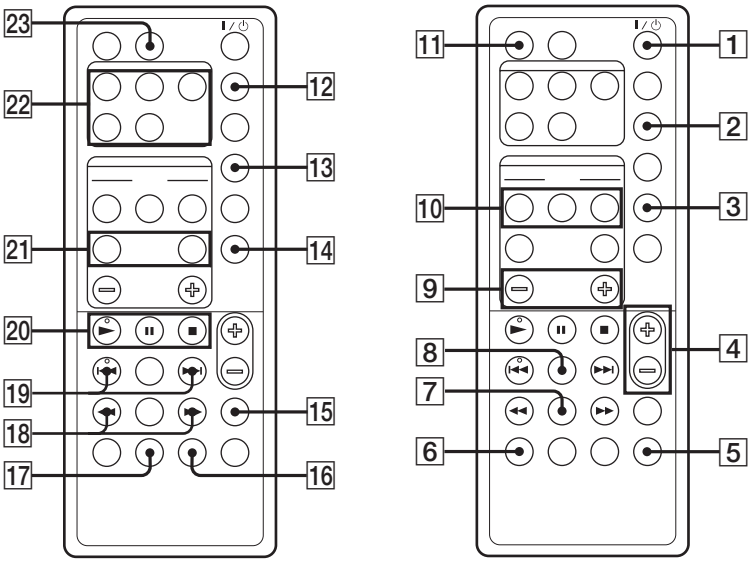
ALBUM +/– 9
DISPLAY 2
DSGX 14
ENTER 8
FAVORITE
  ADD 10
  CALL 10
  DELETE 10
FM MODE 17
FUNCTION 23
LIBRARY
  MODE 21
  SEARCH 21

N – Z

NETWORK 11
MENU 7
PRESET EQ 3
REPEAT 17
SCROLL 13
SLEEP 12
TUNER BAND 15
TUNER MEMORY 5
TUNING MODE 16
TUNING +/– 19
USER PROFILE 22
VOL +/– 4

BUTTON DESCRIPTIONS

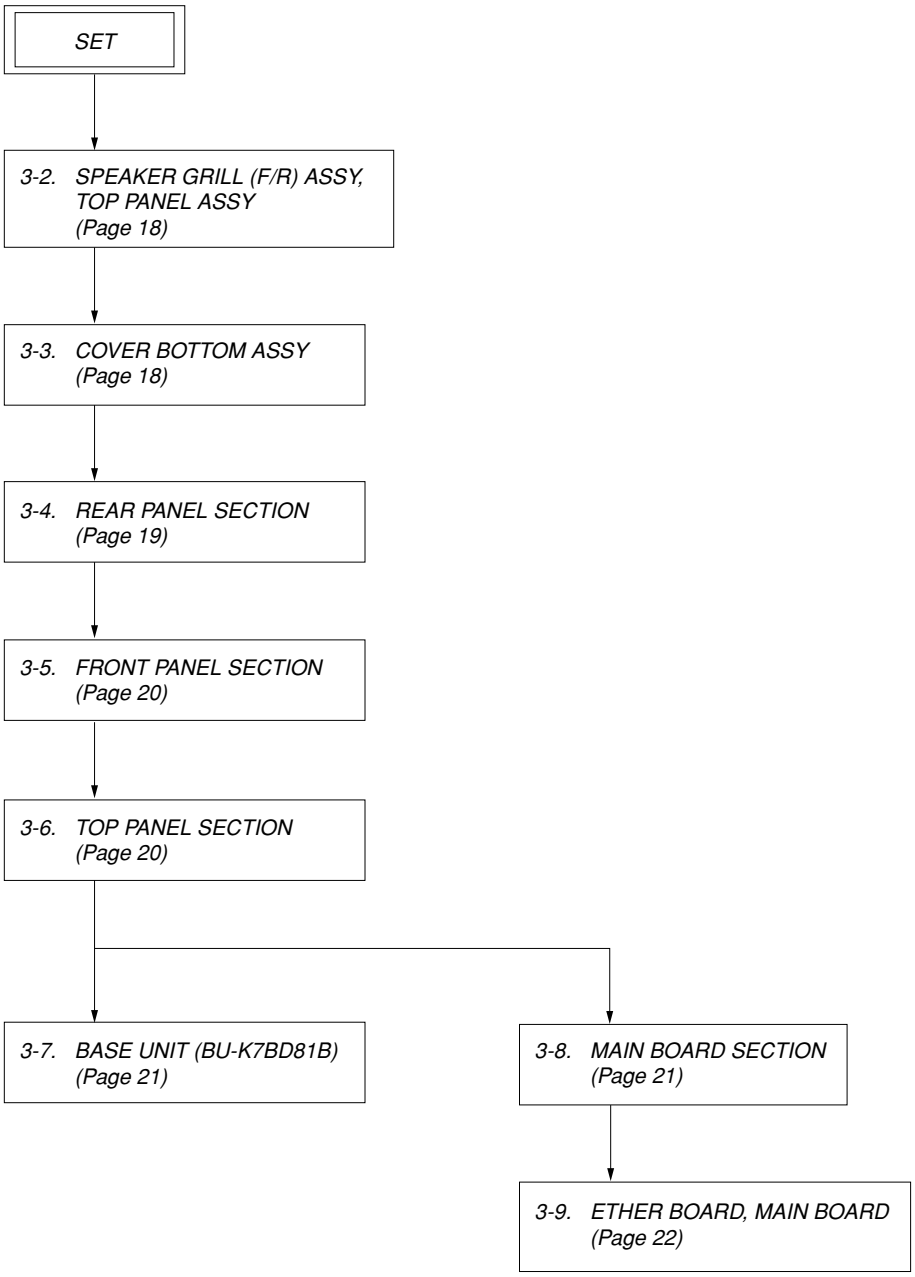
I/⏻ (On/Standby) 1
1/ALL 6
◀◀/▶▶ (rewind/fast forward) 18
←CURSOR/CURSOR→ 18
I◀◀ /▶▶I (go back/go forward)* 19
► (play)* 20
II (pause) 20
■ (stop) 20
* The ► and I◀◀ buttons have tactile dots. Use the tactile dots as a reference when operating the system.



SECTION 3
DISASSEMBLY

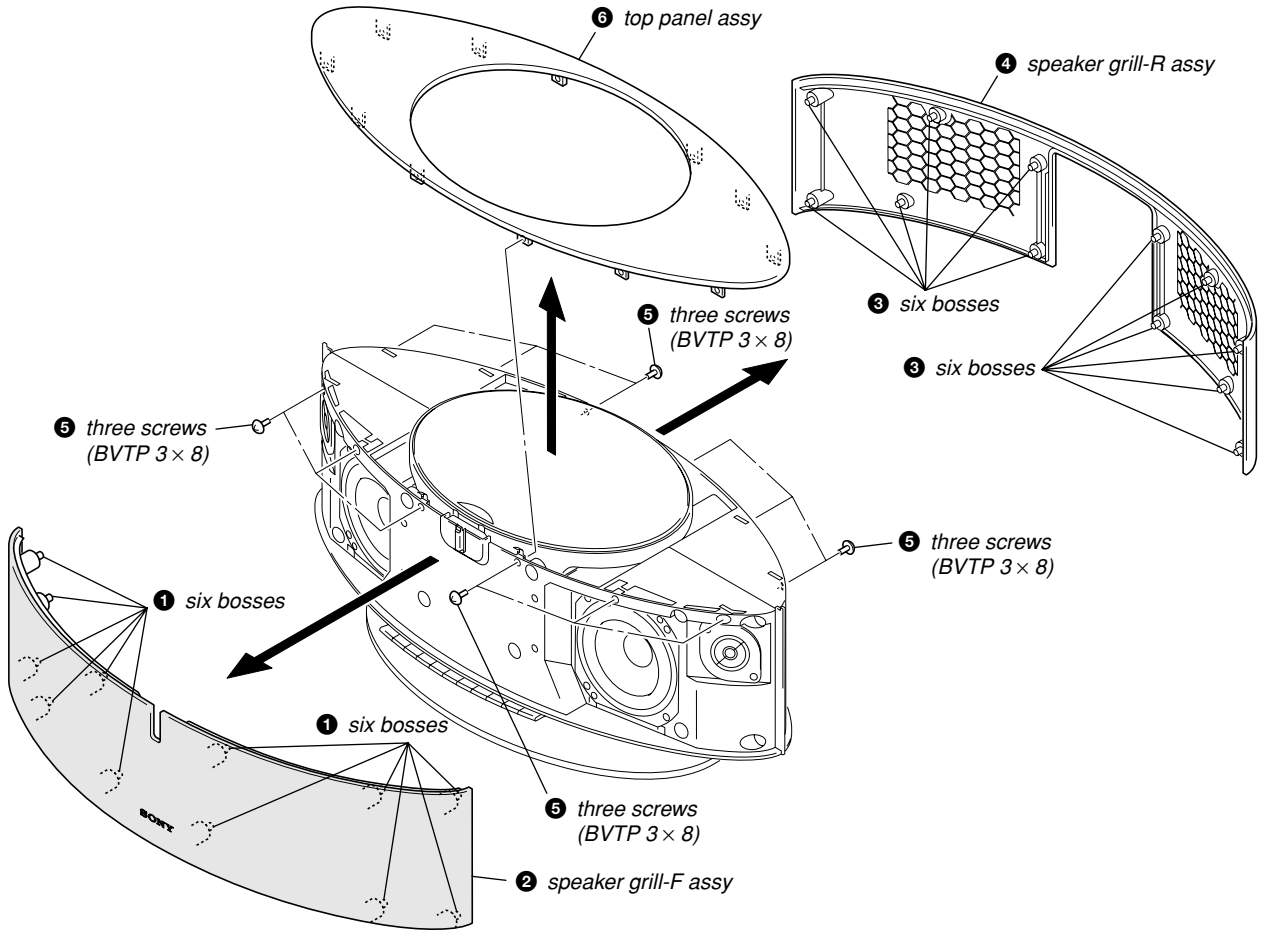
- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

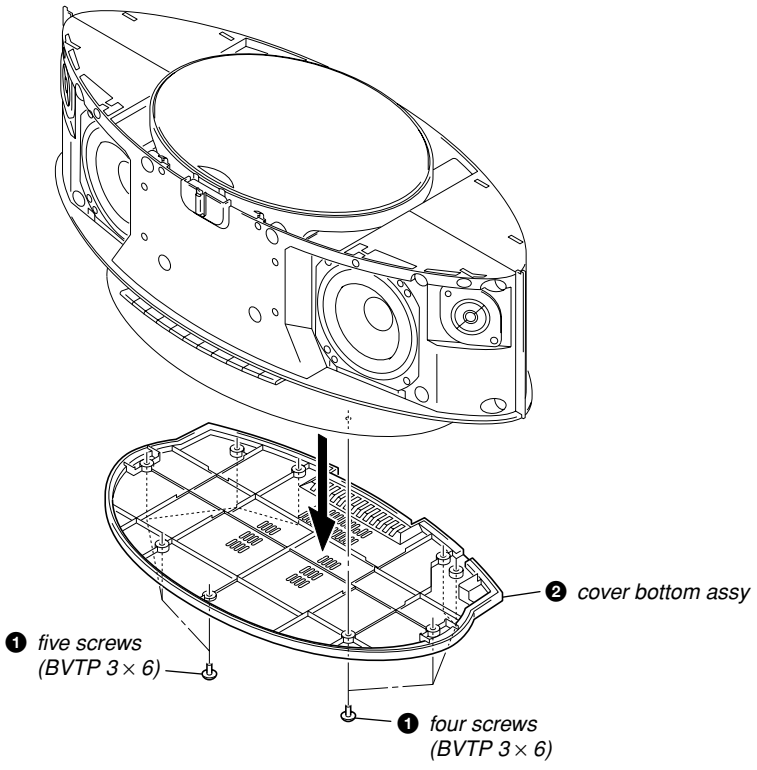

SET
3-2. SPEAKER GRILL (F/R) ASSY, TOP PANEL ASSY (Page 18)
3-3. COVER BOTTOM ASSY (Page 18)
3-4. REAR PANEL SECTION (Page 19)
3-5. FRONT PANEL SECTION (Page 20)
3-6. TOP PANEL SECTION (Page 20)
3-7. BASE UNIT (BU-K7BD81B) (Page 21)
3-8. MAIN BOARD SECTION (Page 21)
3-9. ETHER BOARD, MAIN BOARD (Page 22)

Note: Follow the disassembly procedure in the numerical order given.

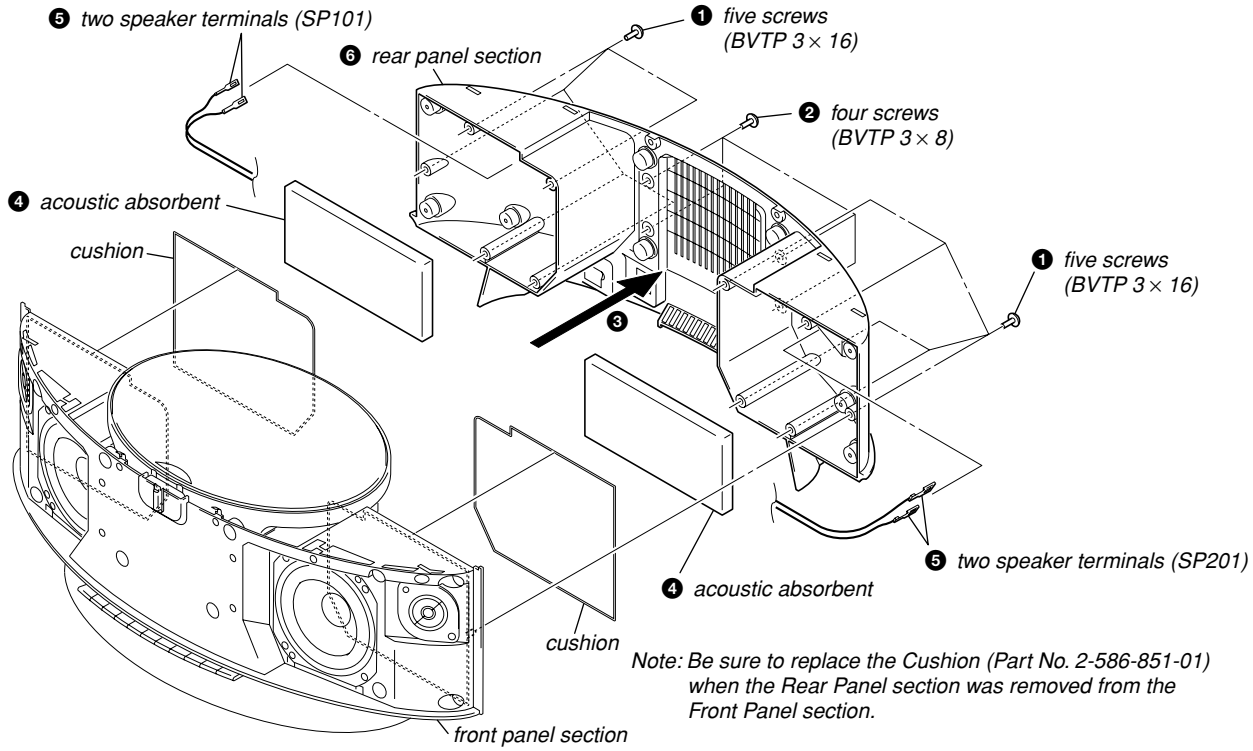
3-2. SPEAKER GRILL (F/R) ASSY, TOP PANEL ASSY


6 top panel assy
4 speaker grill-R assy
3 six bosses
5 three screws (BVTP 3 × 8)
3 six bosses
5 three screws (BVTP 3 × 8)
5 three screws (BVTP 3 × 8)
1 six bosses
1 six bosses
5 three screws (BVTP 3 × 8)
2 speaker grill-F assy

3-3. COVER BOTTOM ASSY

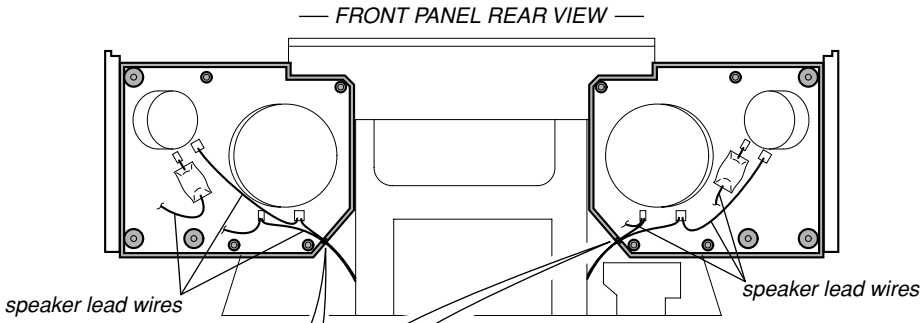


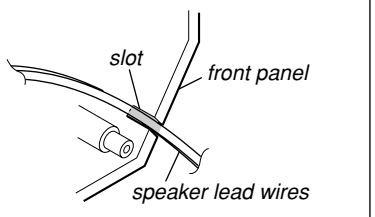
3-4. REAR PANEL SECTION



Note: Be sure to replace the Cushion (Part No. 2-586-851-01) when the Rear Panel section was removed from the Front Panel section.

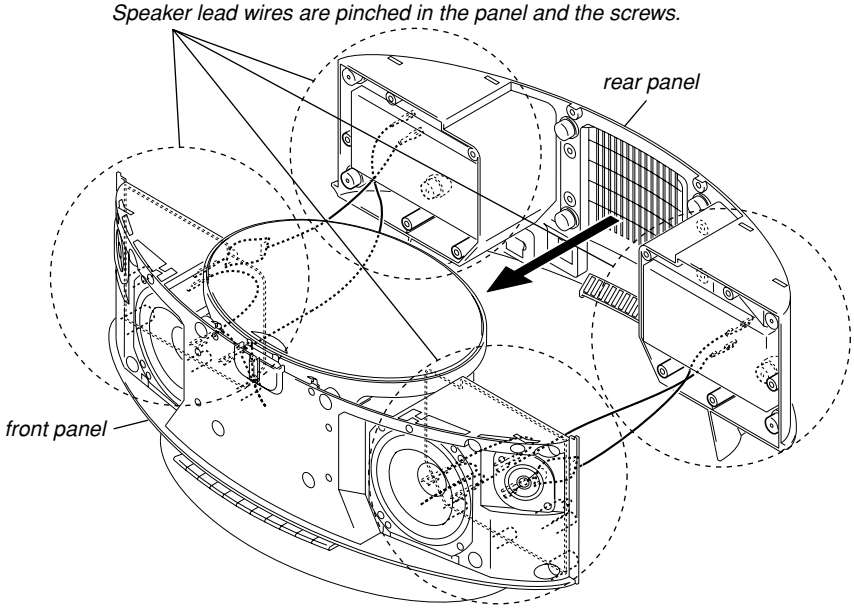
NOTE WHEN ASSEMBLING THE REAR PANEL



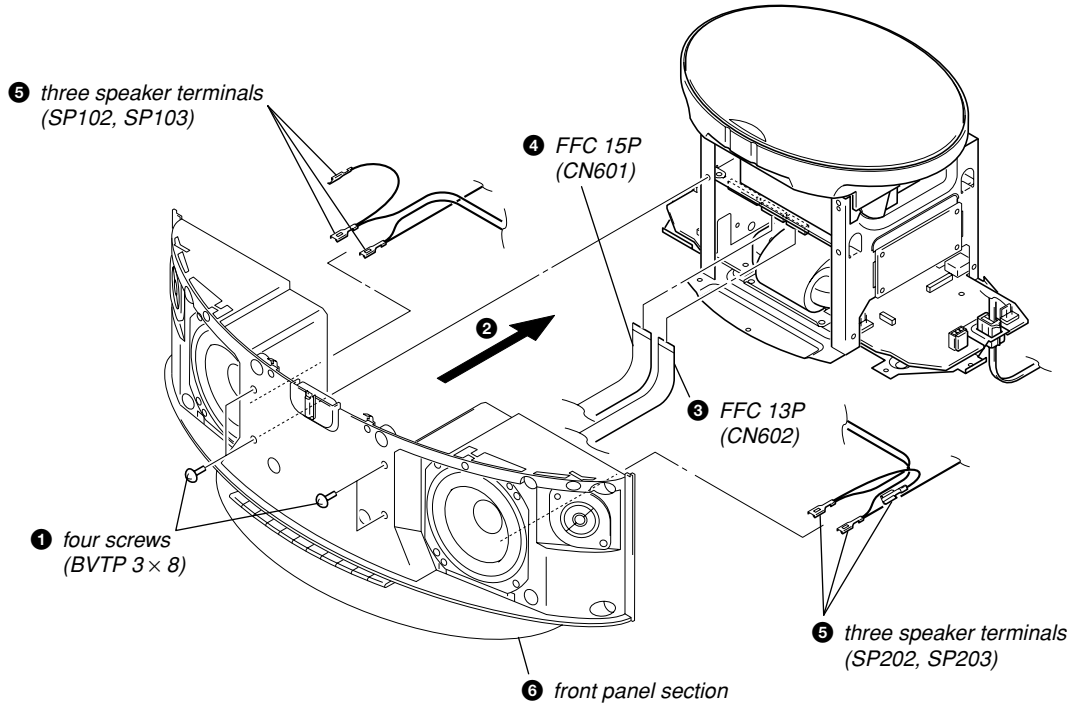


Note: Arrange the wires by putting the Speaker lead wires in the slot of the Front Panel.

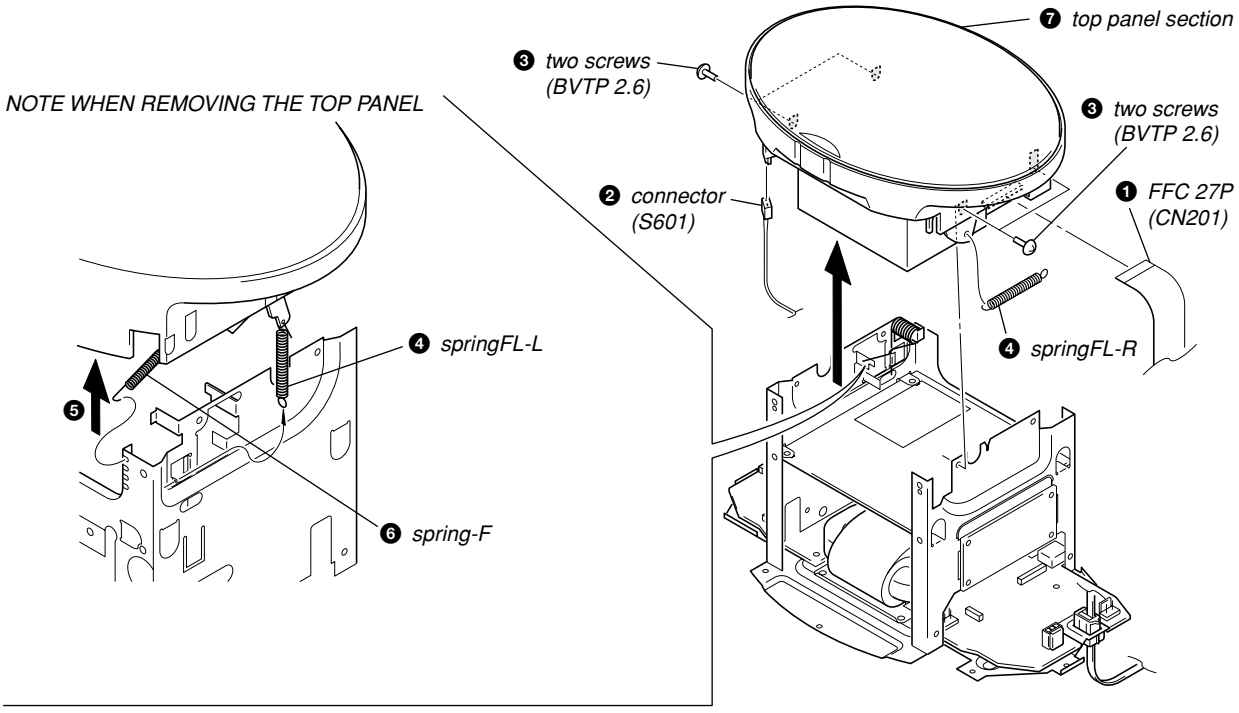
Note: Assemble the Rear Panel, taking care whether the Speaker lead wires are pinched in the panel and the screws.



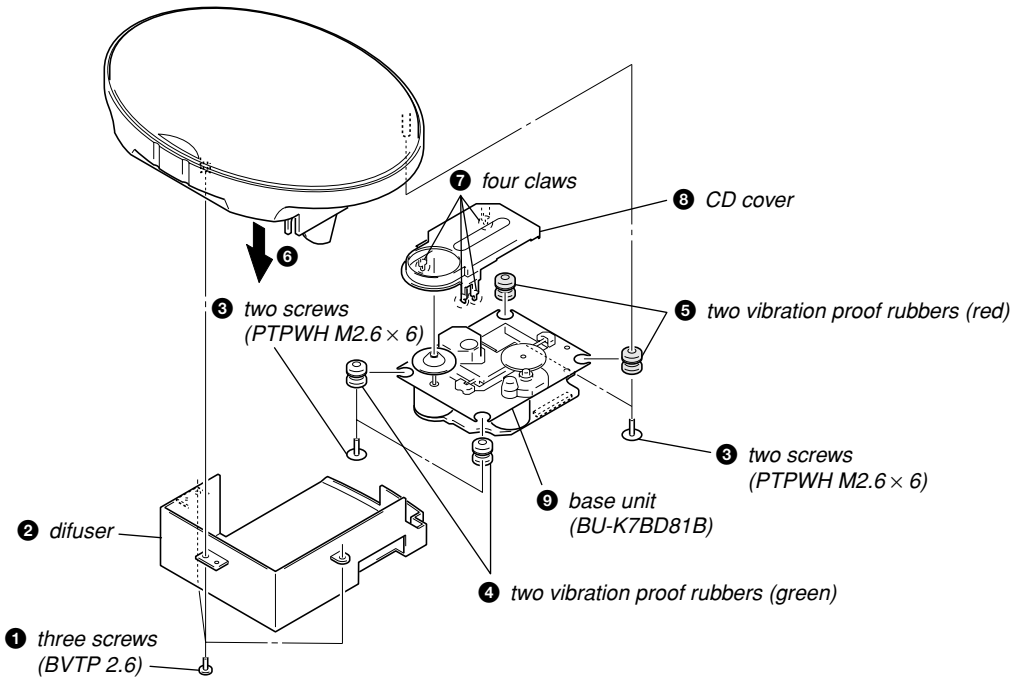
3-5. FRONT PANEL SECTION


❺ three speaker terminals (SP102, SP103)
❹ FFC 15P (CN601)
❷
❸ FFC 13P (CN602)
❶ four screws (BVTP 3 × 8)
❺ three speaker terminals (SP202, SP203)
❻ front panel section

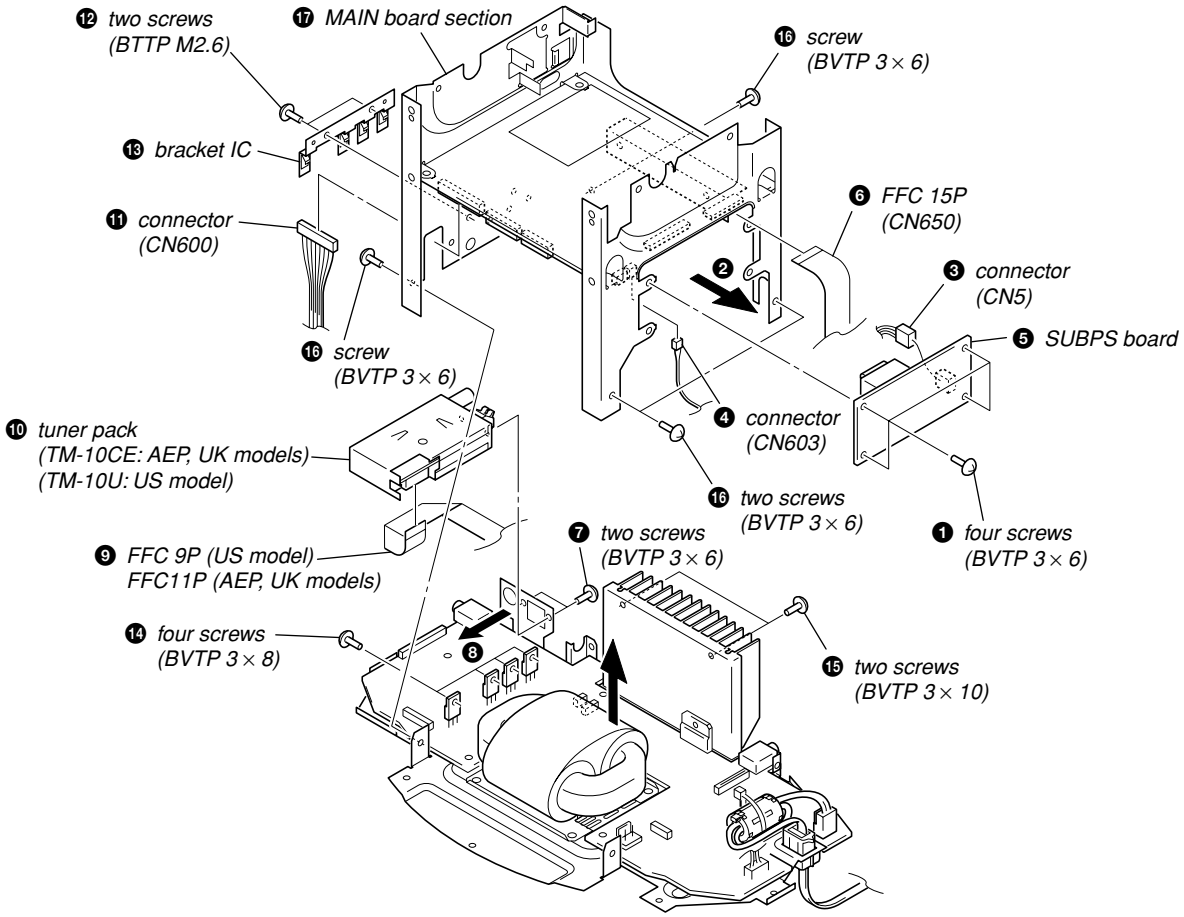
3-6. TOP PANEL SECTION



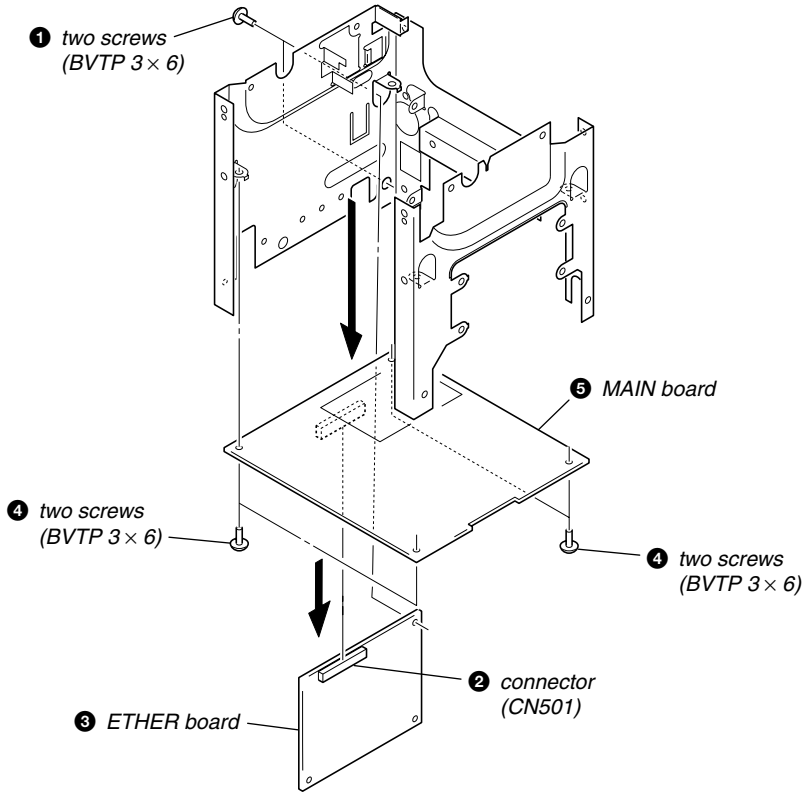
3-7. BASE UNIT (BU-K7BD81B)


❼ four claws
❽ CD cover
❻
❸ two screws (PTPWH M2.6 × 6)
❺ two vibration proof rubbers (red)
❸ two screws (PTPWH M2.6 × 6)
❾ base unit (BU-K7BD81B)
❷ difuser
❹ two vibration proof rubbers (green)
❶ three screws (BVTP 2.6)

3-8. MAIN BOARD SECTION


⓬ two screws (BTTP M2.6)
⓱ MAIN board section
⓰ screw (BVTP 3 × 6)
⓭ bracket IC
⓫ connector (CN600)
❻ FFC 15P (CN650)
❷
❸ connector (CN5)
❺ SUBPS board
⓰ screw (BVTP 3 × 6)
❹ connector (CN603)
⓾ tuner pack (TM-10CE: AEP, UK models) (TM-10U: US model)
⓰ two screws (BVTP 3 × 6)
❶ four screws (BVTP 3 × 6)
❼ two screws (BVTP 3 × 6)
❾ FFC 9P (US model) FFC11P (AEP, UK models)
⓮ four screws (BVTP 3 × 8)
❽
⓯ two screws (BVTP 3 × 10)

3-9. ETHER BOARD, MAIN BOARD



SECTION 4
TEST MODE

FORCED RESET

* The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons of [I/⏻], [■] and [5] simultaneously.
3. The message "COLD RESET" is displayed on the fluorescent indicator tube momentarily after "See you!" is displayed, then becomes standby states.

AMP TEST MODE

Procedure:

1. Press the [I/⏻] button to turn the power on
2. Press three buttons of [VOL –], [►] and [2] simultaneously.
3. In this mode, change the display as "MIN" ⟷ "21" ⟷ "MAX" by pressing the [VOL –] / [VOL +] buttons.
4. To release this mode, press the [I/⏻] button to execute the cold reset and becomes standby status.

DISPLAY CHECK MODE

This mode is used to check the fluorescent indicator tube and LEDs.

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons of [VOL –], [►] and [3] simultaneously.
3. When this mode is activated, the fluorescent indicator tube and LEDs are all turned on.
4. In this mode, change the display as follows by pressing the [NETWORK] button.
   All on ⟶ FL all off ⟶ FL pattern 1 ⟶ FL pattern 2 ⟶ LED all off ⟶ [1] LED on ⟶ [2] LED on ⟶ [3] LED on ⟶ [4] LED on ⟶ [5] LED on ⟶ [I/⏻] LED on ⟶ [NETWORK] LED on ⟶ All on ⟶...
5. To release this mode. press the [I/⏻] button to execute the cold reset and becomes standby status.

KEY CHECK MODE

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons of [VOL –], [►] and [4] simultaneously.
3. If this mode is activated, "KEY-00/12" is displayed on the fluorescent indicator tube.
4. In this mode, each time any key is pressed, it increment the number of display until "KEY-12/12"
5. To release this mode, press three buttons of [VOL –], [►] and [4] simultaneously again.

CHANGE-OVER THE AM TUNING INTERVAL (EXCEPT AEP, UK models)

The AM tuning interval can be changed over 9kHz or 10kHz

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press the [FUNCTION] button to select "AM".
3. Press the [I/⏻] button again to turn the power off (standby).
4. While pressing the [FUNCTION] button, press the [I/⏻] button.
5. It turns power on and display "STEP 9kHz" or "STEP 10kHz", and thus the tuning interval is changed over.

VERSION CHECK MODE

* This mode is used to check the version of model, destination and software.

Procedure:

1. Press the [I/⏻] button to turn the power on.
2. Press three buttons of [VOL +], [NETWORK] and [1] simultaneously.
3. when this mode is activated, model and destination is displayed on the fluorescent indicator tube.
4. In this mode, change the version display as model/destination ⟶ CD-STR ⟶ Ethernet system ⟶ model/destination ⟶ ...
5. To release this mode, press the [I/⏻] button to execute the cold reset and becomes standby status.

CD ERROR HISTORY DISPLAY MODE

* This mode can be used for error code display of CD section.

Procedure:

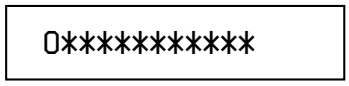
1. Press the [I/⏻] button to turn the power on.
2. Press the [FUNCTION] button to select "CD".
3. Press three buttons of [VOL +], [►] and [3] simultaneously.
4. When this mode is activated, it displays as follows.

Error count display:

Em0 : Not used
Ed## : Error count of BD section

5. In this mode, change the display as error count ⟷ "MO" display (not used) ⟷ error detail by pressing the [ALBUM -]/[ALBUM +] keys on remote commander (RM-ANP002).
6. In the error detail display mode, change the error number and that error detail by pressing the [⏮] or [⏭] keys on remote commander (RM-ANP002).

Error detail display:



∗ : Hexadecimal number (refer to following table for detail)

7. To release this mode, press the [I/⏻] button to turn the power off or press the [FUNCTION] button to change the function.

Error detail:

Digit	Contents	Value	Detail
1st	Error number	0 to 9	"0" is latest error
2nd and 3rd	Kind of error	01	Focus error
		02	GFS error
		03	Time out of wake up
		04	Defocused continuously
		05	Q code error
		06	Can not tracking on
		07	Blank disc
4th and 5th	Process when an error occurred	01	Shipping
		02	Power off in progress
		03	Power on in progress
		04	Initializing
		05	Oscillation stop status
		06	Starting up the oscillation
		07	Stop status
		08	Stopping in progress
		09	Starting up in progress
		0a	TOC reading
		0b	Searching
		0c	Playback in progress
		0d	Pause in progress
		0e	Playback manual searching
		0f	Pause manual searching
6th and 7th	Step number when an error occurred	XX	Step number
8th and 9th	Disc speed when an error occurred	01	Normal speed
		02	Double speed
		04	4 times speed
10th an 11th	Not used	00	Fixed at "00"

CD SERVICE MODE

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION button to select "CD".
3. Press three buttons of VOL +, ► and 1 simultaneously.
4. If this mode is activated, "SERVICE MODE" is displayed on the fluorescent indicator tube. (Goes off that display when release three buttons)
5. In this mode, it operation as following table.

Buttons	Display	Operation
⏮ *1	SLED OUT	Move the sled to outer side
⏭ *1	SLED IN	Move the sled to inner side
►	LD ON or LD OF	Laser diode on / off

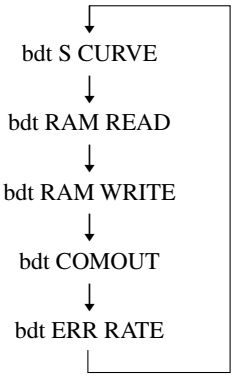
*1) Use the remote commander (RM-ANP002)

6. To release this mode, press the I/⏻ button to turn the power off.

CD SERVO TEST MODE

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION button to select "CD"
3. Press three buttons of VOL + , ► and 2 simultaneously.
4. In this mode, it the display changes as follows (Servo test menu mode) by pressing the ⏮ or ⏭ keys on remote commander (RM-ANP002).
5. To release this mode, press the I/⏻ button to turn the power off.

Servo test menu:



1. bdt S CURVE mode

* This mode is use the S-curve check.

1. In the servo test menu mode, press the ⏮ or ⏭ keys on remote commander (RM-ANP002) to select "<bdt S CURVE>".
2. Press the ENTER key to enter the S-curve mode.
3. To back to the servo test menu mode, press the ■ key on remote commander (RM-ANP002)

2. bdt RAM READ made

1. In the servo test menu mode, press the ⏮ or ⏭ keys on remote commander (RM-ANP002) to select "<bdt RAM READ>".
2. Press the ENTER key to enter the RAM read mode.
3. In this mode, the display cyclic changes as follow by pressing the ALBUM - or ALBUM+ key.

Display	Item
DISC SIZE	00:no disc, 01:8cm disc,02:12cm disc
RFDoffset	RFDC offset value
RFAoffset	RFAC offset value
FE offset	FE offset value
TE offset	TE offset value
RF gain_2	RF AMP secondly gain value
TE gain_2	TE secondly gain value
EFBALgain	EF balance gain value
EQ BOOT	EQ boot setting value

4. To back to the servo test menu mode, press the ■ key on remote commander (RM-ANP002)

3. bdt RAM WRITE mode
Not used in servicing

4. bdt COMOUT mode
Not used in servicing

5. bdt ERR RATE mode
In bdt ERR RATE mode, [▶], [⏮] and [⏭] keys on the main unit don't work as its normally key function.

1. Press the [I/⏻] button to turn the power on.
2. Insert a CD disc and press the [FUNCTION] button to select "CD".
3. Press the [▶] key and select any track with the [⏮]/[⏭] keys to play a sample track.
   Press the [REPEAT] key on remote commander to set REPEAT 1 mode if you need.
4. Press three buttons of [▶], [VOL+] and [2] simultaneously.
5. Change the display by pressing the [⏮]/[⏭] keys to show "bdt ERR RATE".
6. Press the [ENTER] key on remote commander (RM-ANP002).
7. It displays the error rate as follows.

Error rate display:

✱✱✱✱#####$$&&⁙⁙

✱✱✱✱ : C1 error rate
: C2 error rate
$$: Track number
&& : Minutes
⁙⁙ : Seconds

Note: If "C2" value is not "0000" while playing a track, there is a possibility that sound skipping happens. By comparing the playability of a track, you can check the disc condition.

To back to the servo test menu mode, press the [■] key on remote commander.
To release the servo test mode, press the [I/⏻] button to turn the power off.

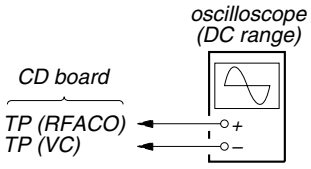
SECTION 5
ELECTRICAL ADJUSTMENTS

CD SECTION

Note:

1. CD Block is basically constructed to operate without adjustment.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Check the focus bias check when optical block is replaced.

FOCUS BIAS CHECK

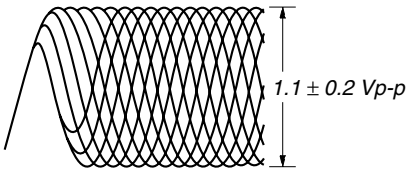


Procedure :

1. Connect the oscilloscope to TP (RFACO) and TP (VC) on the CD board.
2. Insert the disc (YEDS-18). (Part No. : 3-702-101-01)
3. Press the CD ▶II button.
4. Confirm that the oscilloscope waveform is as shown in the figure below. (eye pattern)
   A good eye pattern means that the diamond shape (◊) in the center of the waveform can be clearly distinguished.

- **RF signal reference waveform (eye pattern)**

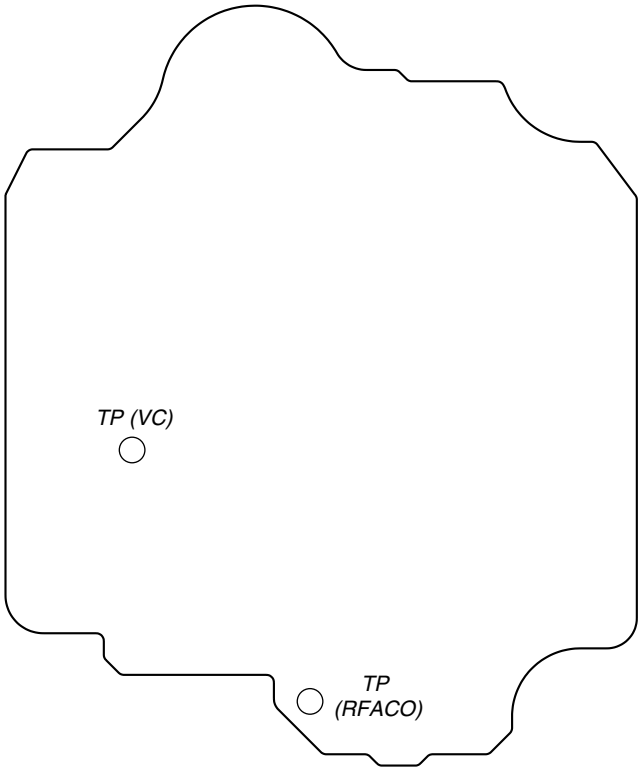
VOLT/DIV: 0.2 V (with the 10: 1 probe in use.)
TIME/DIV: 500 ns



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

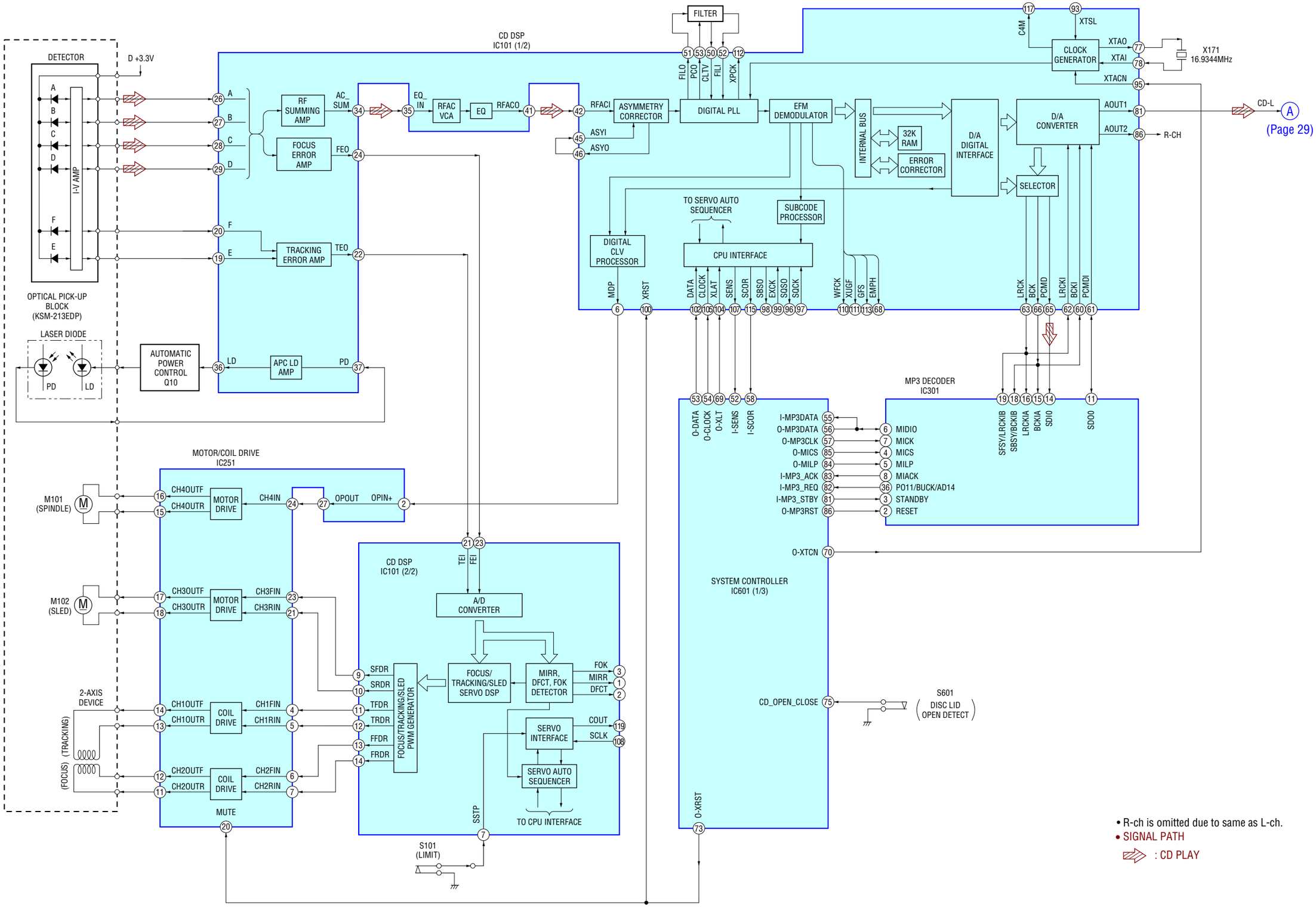
Checking Location:

– CD BOARD (Conductor Side) –



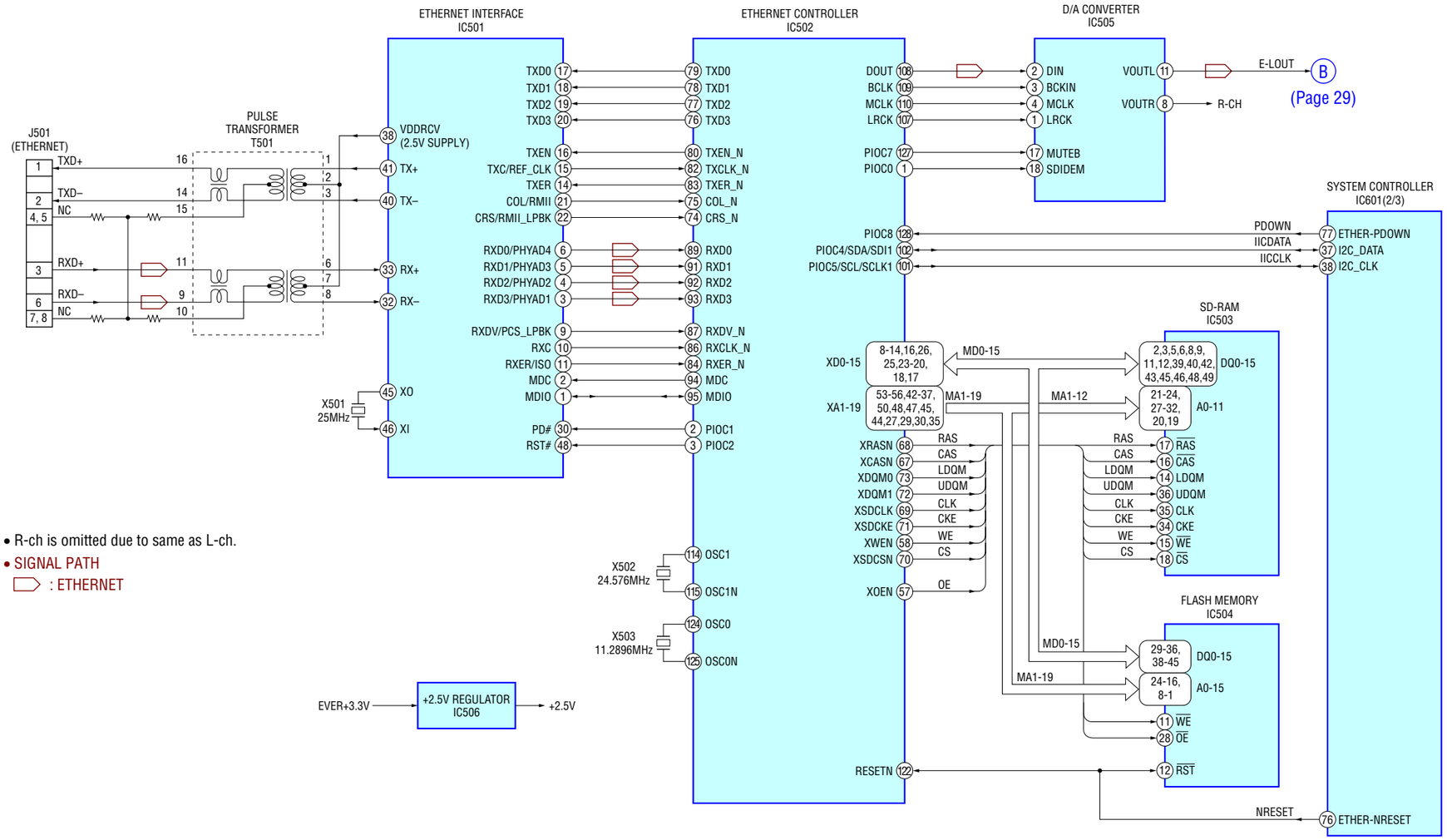
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM – SERVO SECTION –



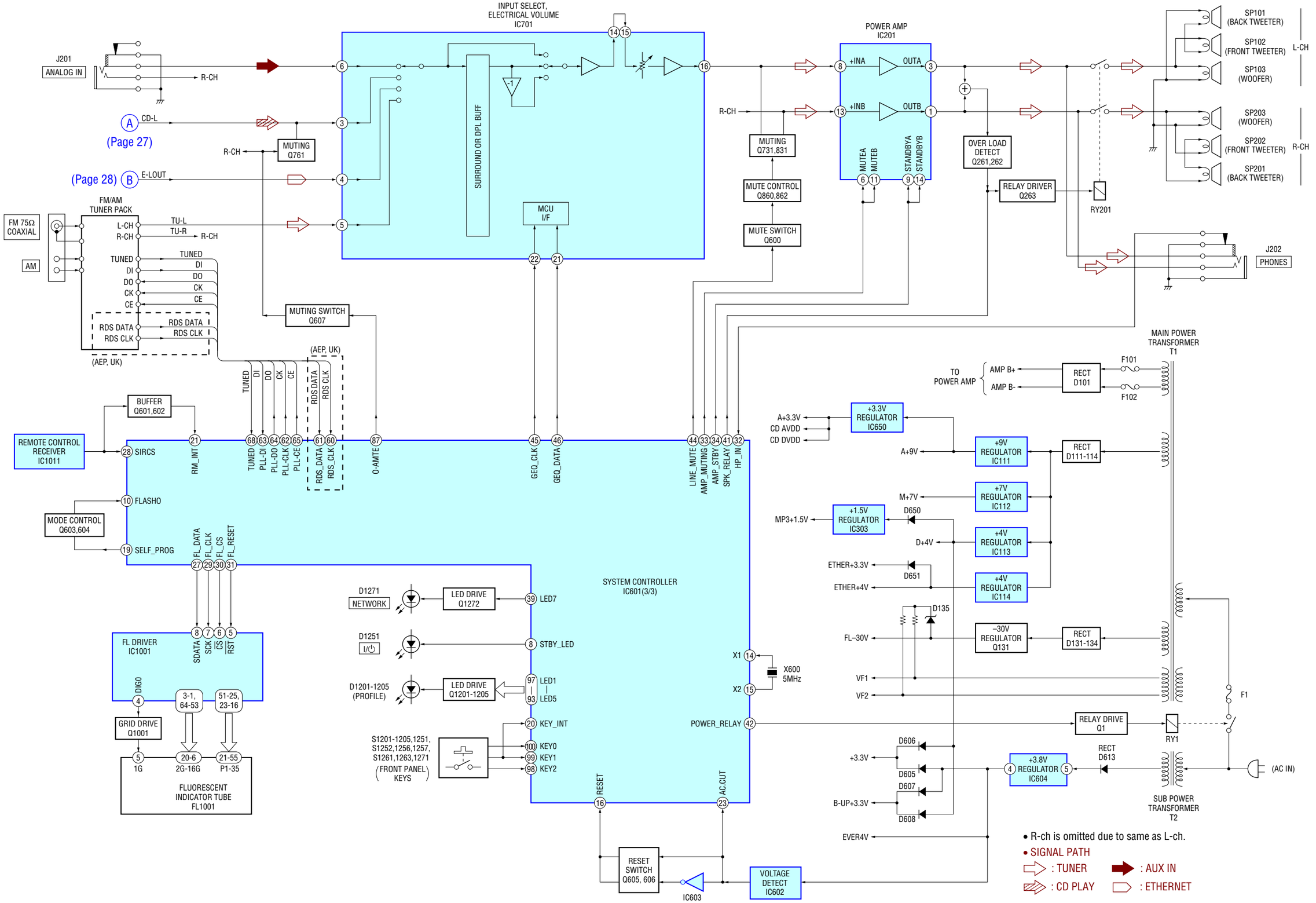
• R-ch is omitted due to same as L-ch.
• SIGNAL PATH
: CD PLAY

6-2. BLOCK DIAGRAM – ETHERNET SECTION –



- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  : ETHERNET

6-3. BLOCK DIAGRAM – MAIN SECTION –



• Note for Printed Wiring Boards and Schematic Diagrams

Note on Printed Wiring Board:

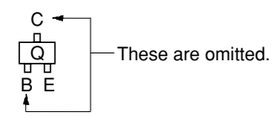
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ■ : Pattern from the side which enables seeing.

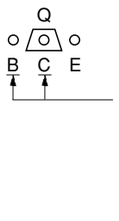
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor





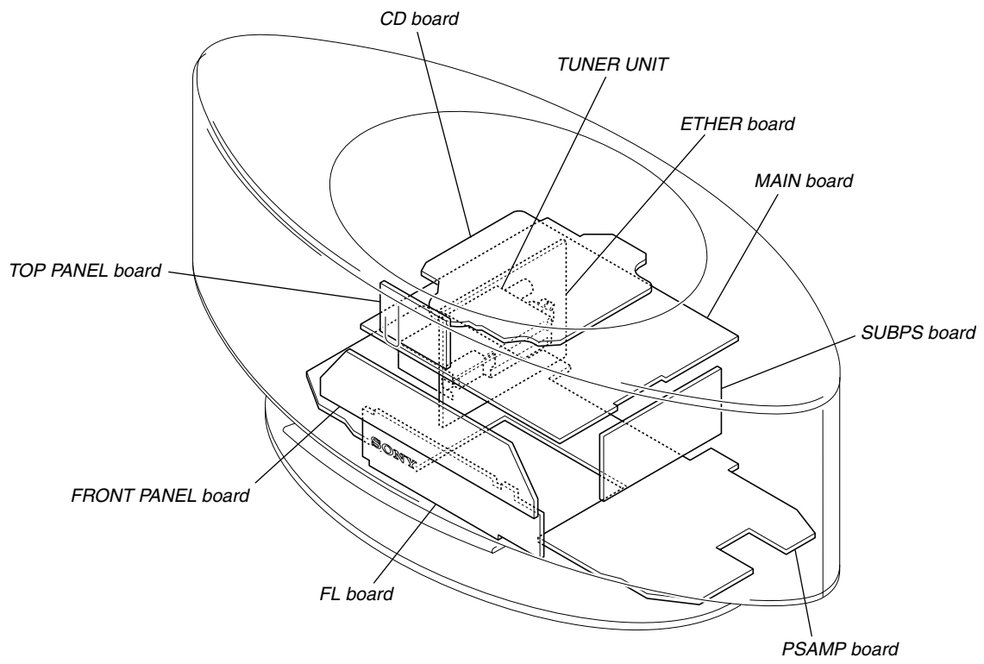
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  – CD Board –
  no mark : CD PLAY
  – Other Section –
  no mark : TUNER
  ( ) : CD PLAY
  ⟨⟨ ⟩⟩ : TAPE PLAY
  { } : REC
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : TUNER
  ⇨ : CD PLAY
  ➡ : AUX IN
  ▷ : ETHERNET

• Circuit Boards Location

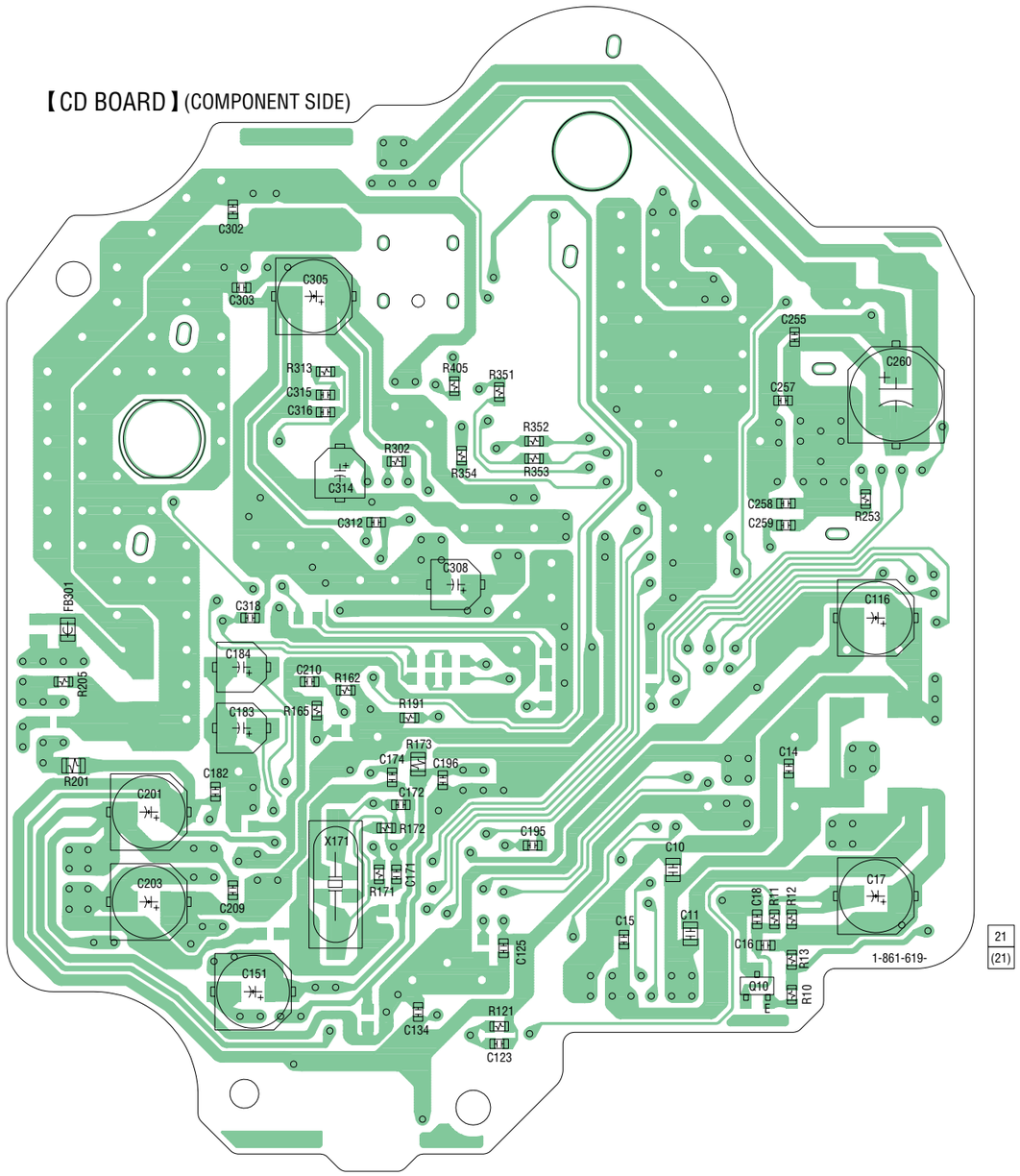


6-4. PRINTED WIRING BOARD – CD BOARD –

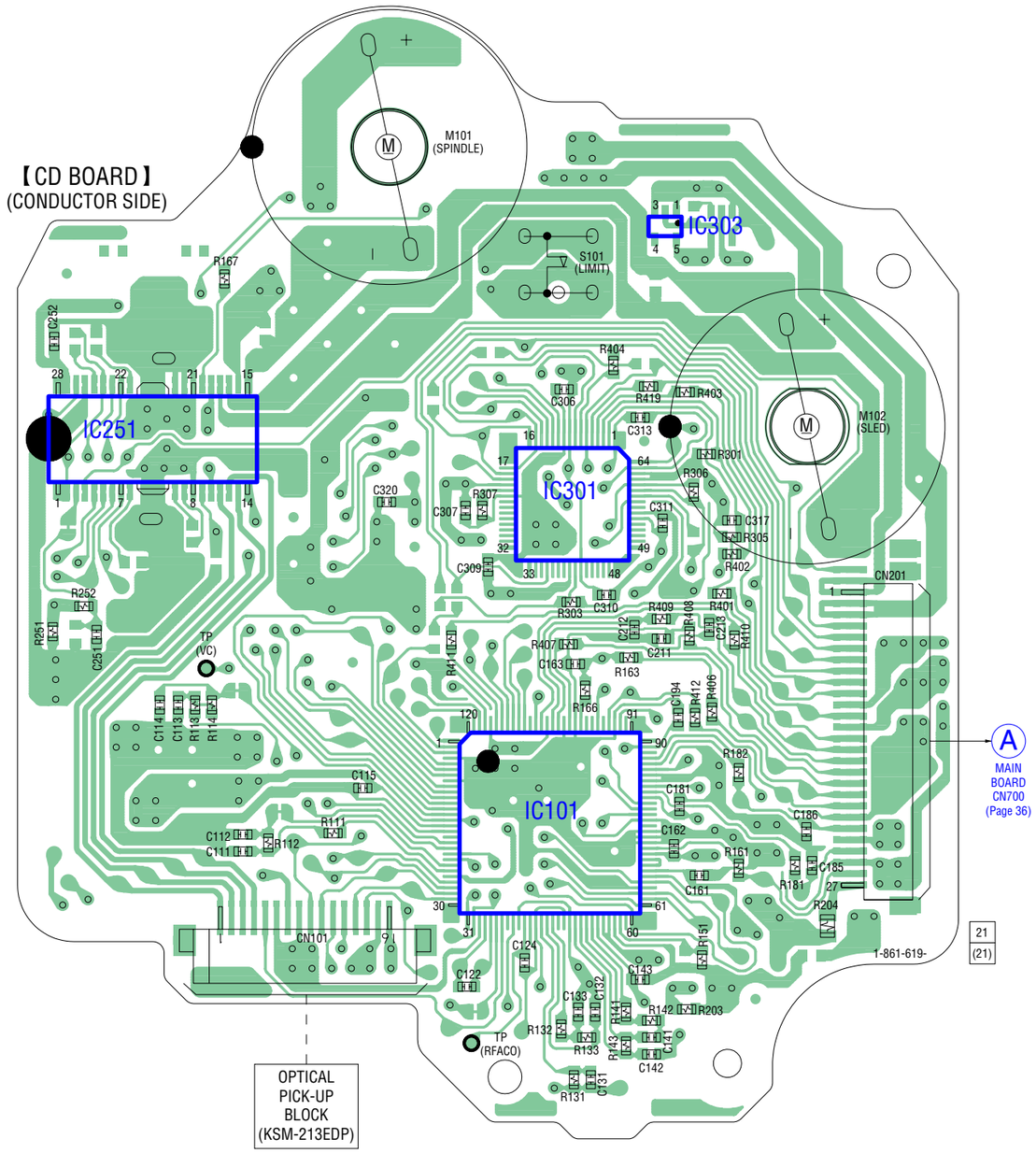
• See page 30 for Circuit Boards Location.

: Uses unleaded solder.

【CD BOARD】(COMPONENT SIDE)

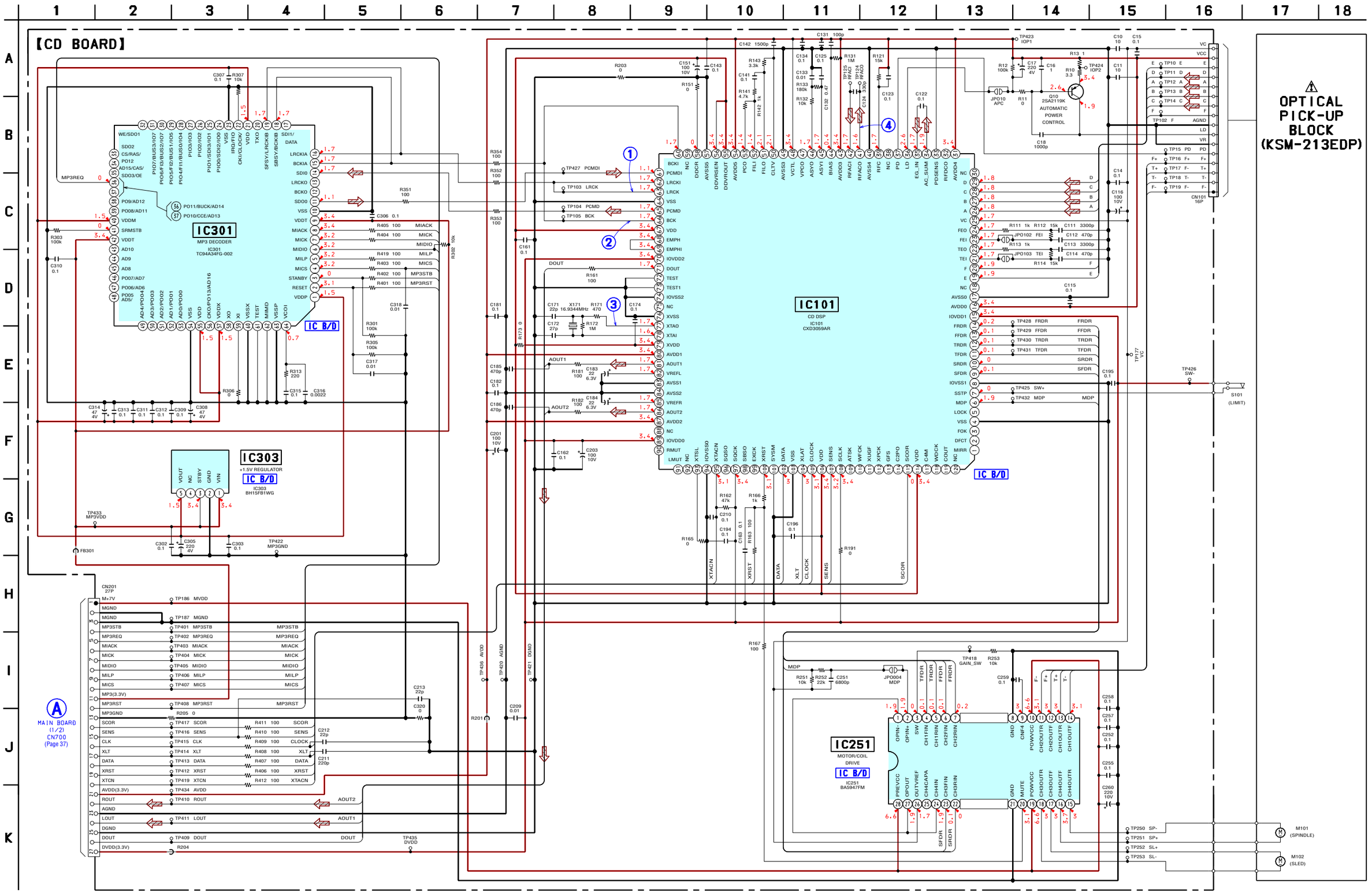


【CD BOARD】
(CONDUCTOR SIDE)



6-5. SCHEMATIC DIAGRAM – CD BOARD –

• See page 45 for Waveforms. • See page 46, 47, 48 for IC Block Diagrams.

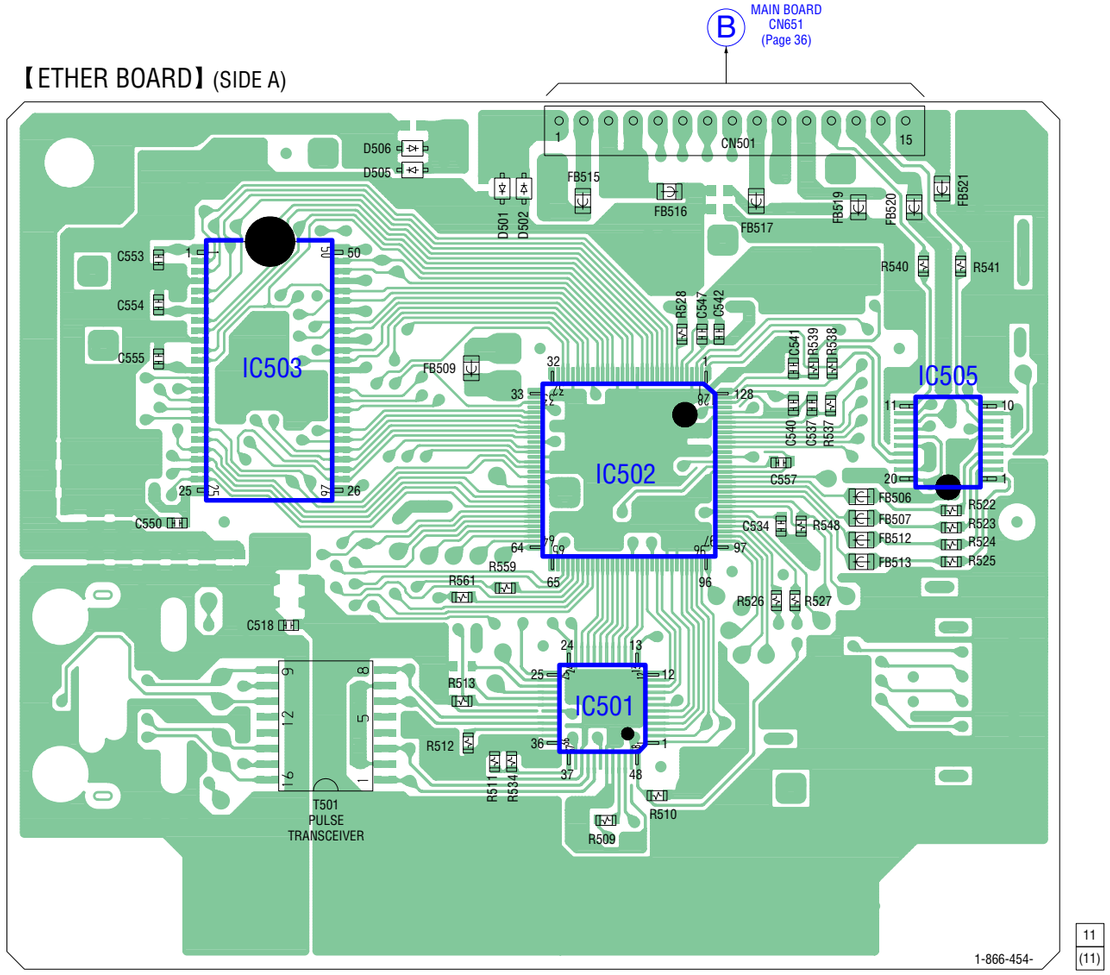


6-6. PRINTED WIRING BOARD – ETHER BOARD –

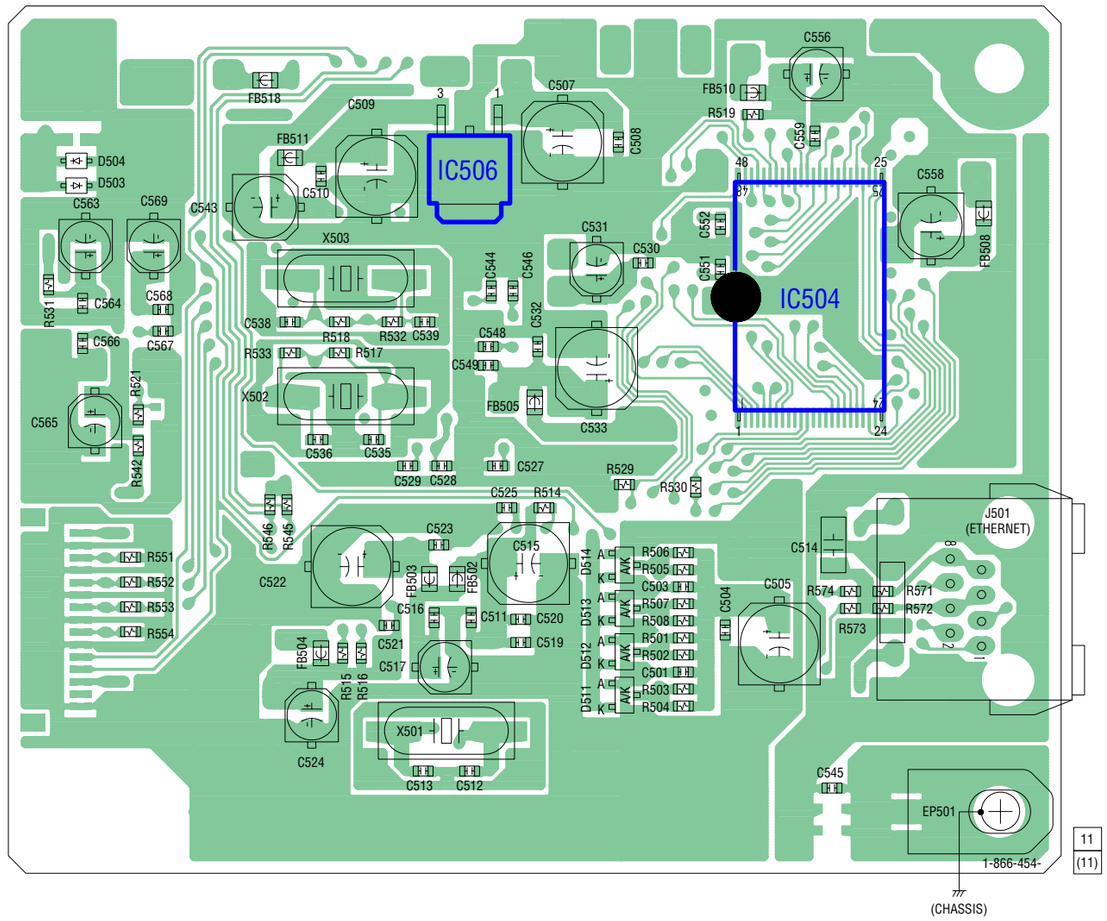
• See page 30 for Circuit Boards Location.

: Uses unleaded solder.

【ETHER BOARD】(SIDE A)



【ETHER BOARD】(SIDE B)

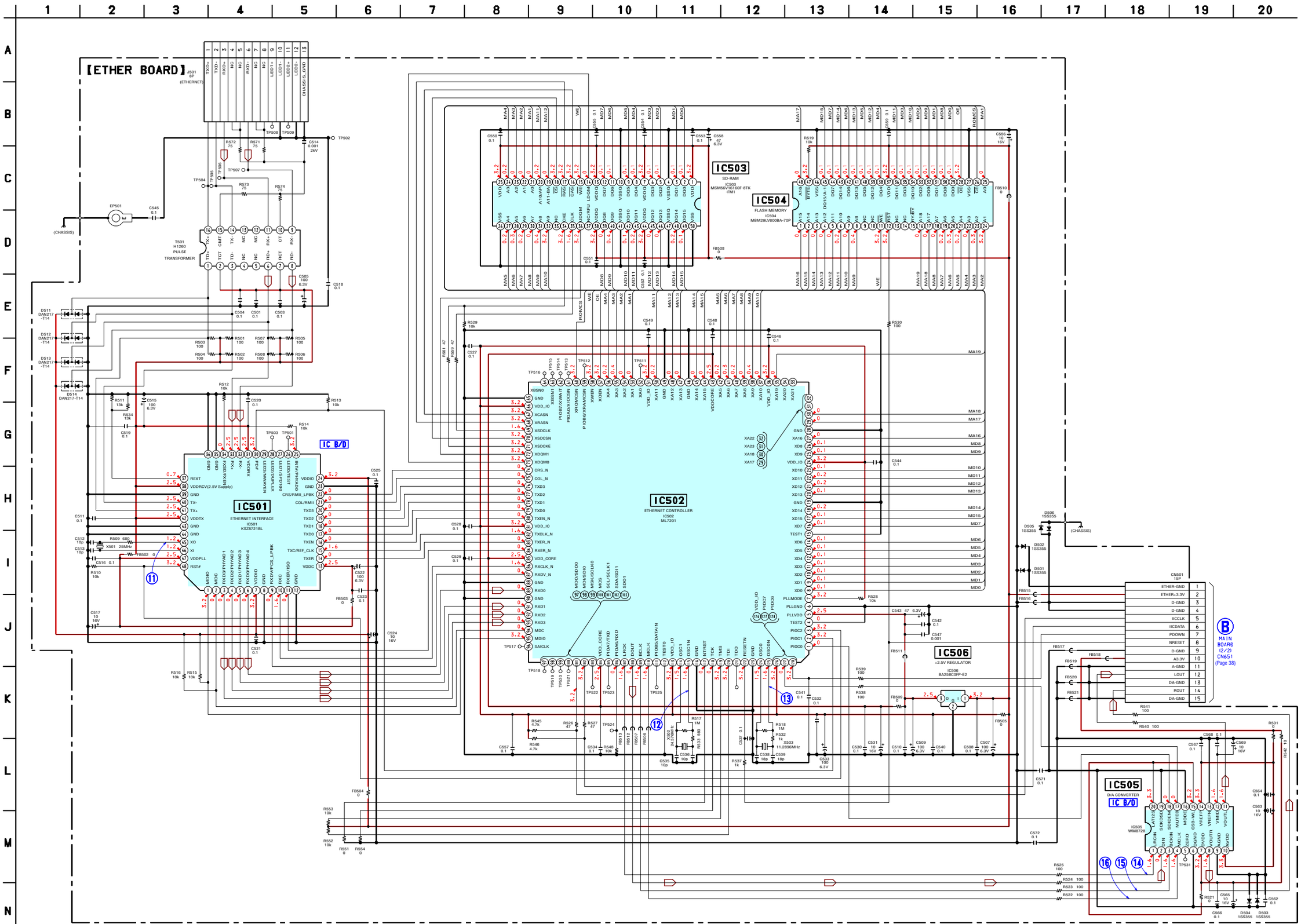


• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D501	B-4	D514	E-12
D502	B-4		
D503	B-9	IC501	E-5
D504	B-9	IC502	D-5
D505	B-4	IC503	C-3
D506	B-4	IC504	C-14
D511	F-12	IC505	D-7
D512	F-12	IC506	C-11
D513	E-12		

6-7. SCHEMATIC DIAGRAM – ETHER BOARD –

• See page 45 for Waveforms. • See page 49 for IC Block Diagrams. • See page 50 for IC Pin Function Description.

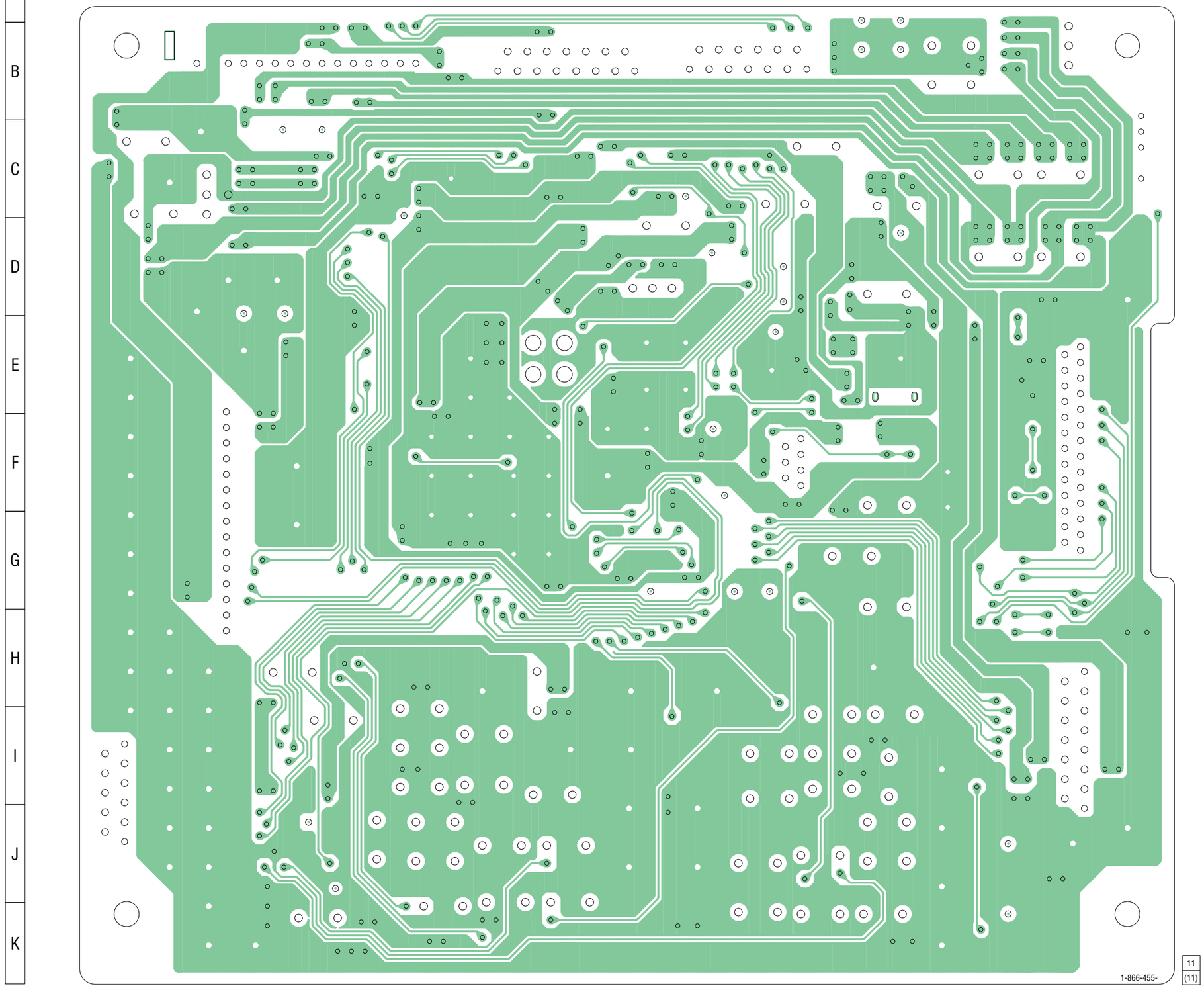


6-8. PRINTED WIRING BOARD – MAIN BOARD (COMPONENT SIDE) –

• See page 30 for Circuit Boards Location.

: Uses unleaded solder.

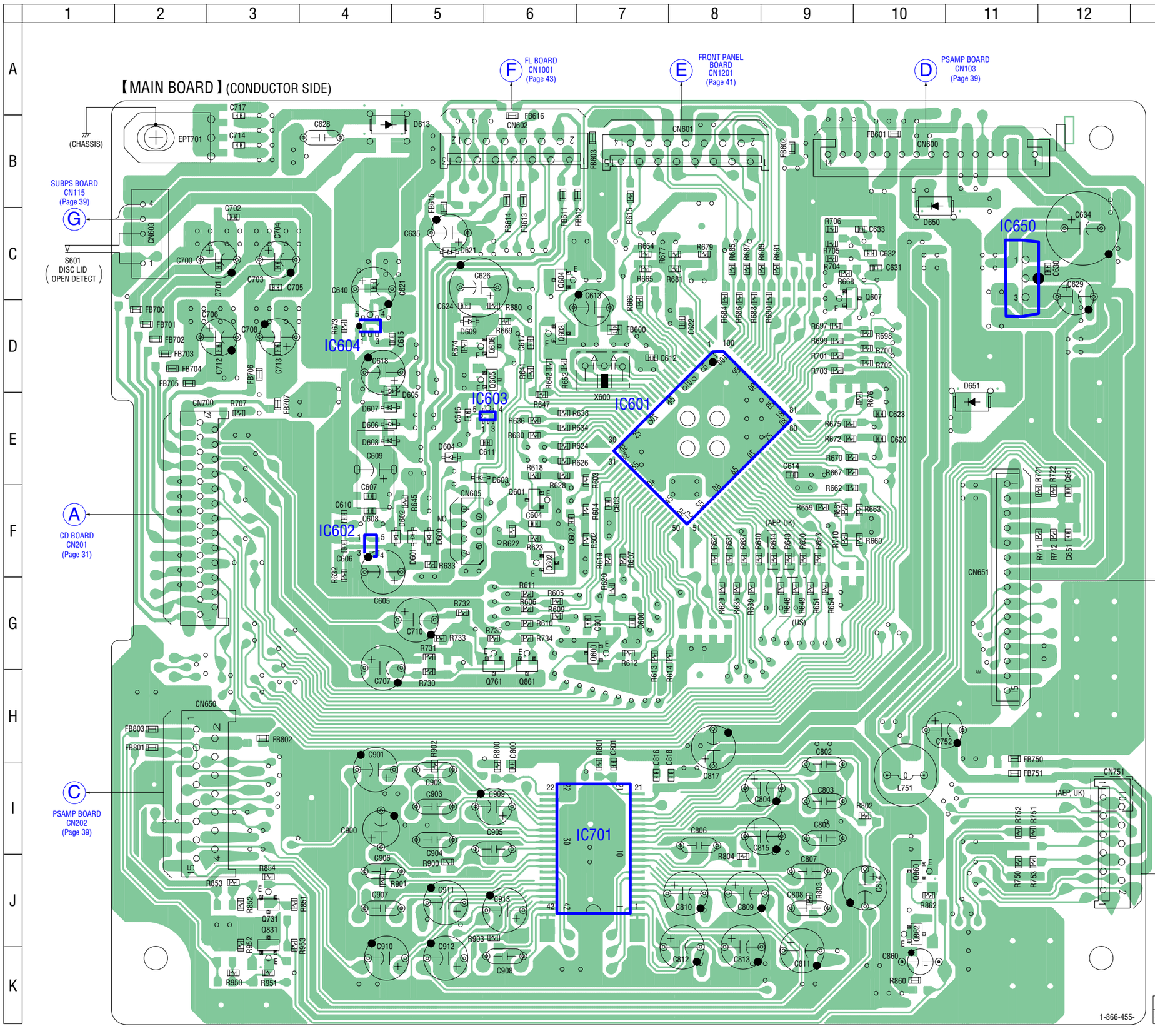
【MAIN BOARD】(COMPONENT SIDE)



6-9. PRINTED WIRING BOARD – MAIN BOARD (CONDUCTOR SIDE) –

• See page 30 for Circuit Boards Location.

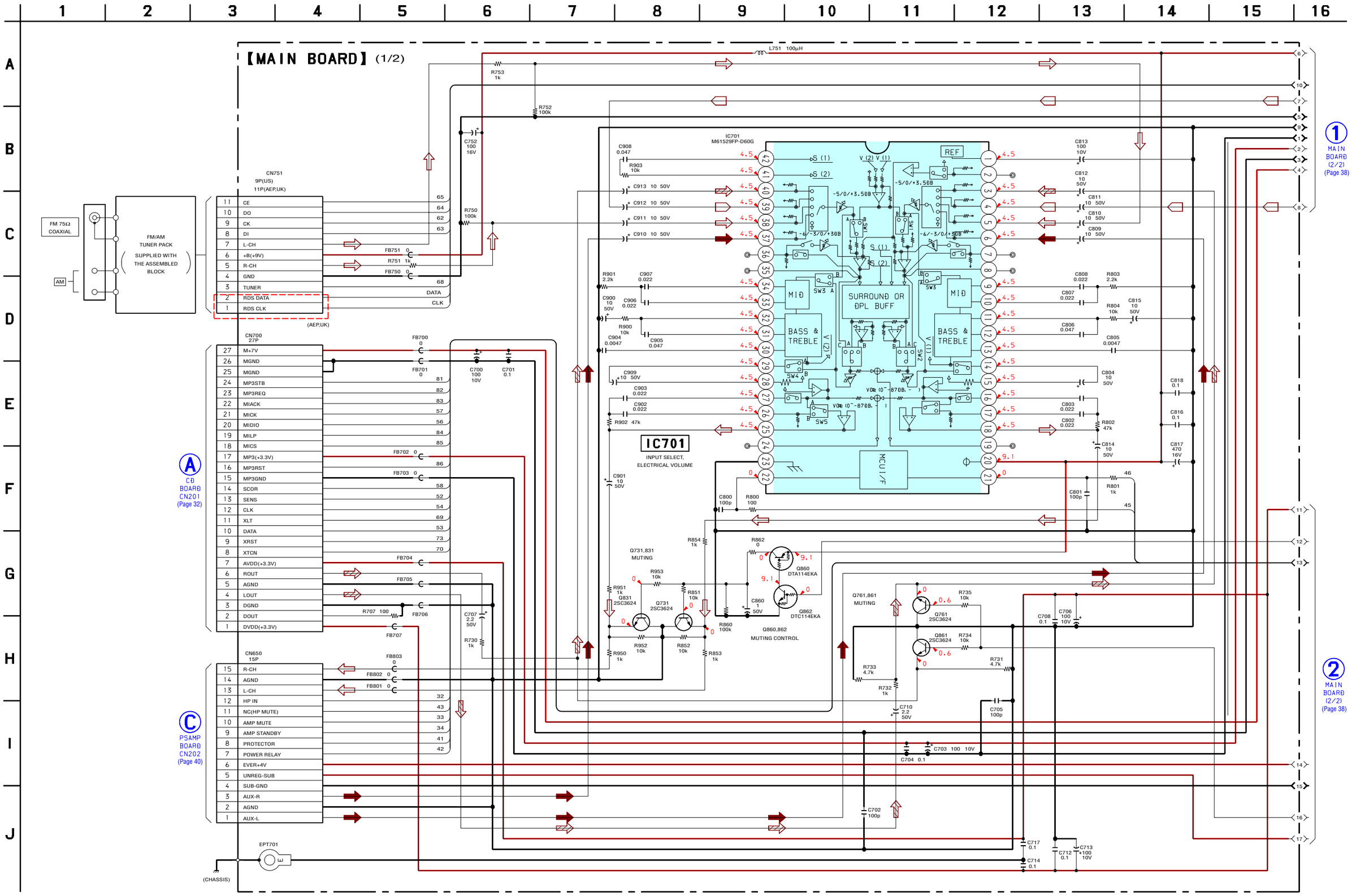
: Uses unleaded solder.



• **Semiconductor Location**

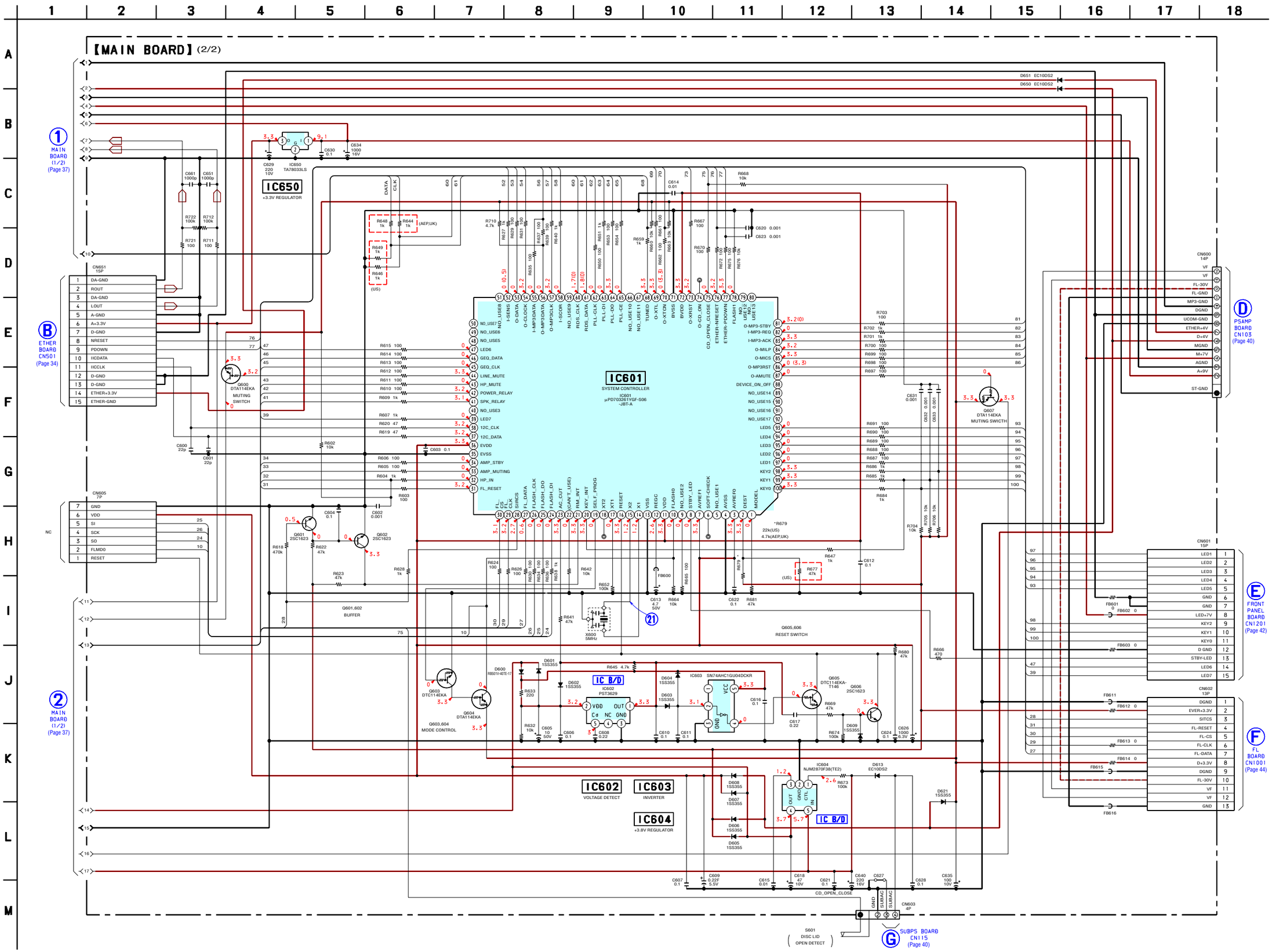
Ref. No.	Location
D600	F-5
D601	F-5
D602	F-5
D603	E-5
D604	E-5
D605	E-5
D606	E-4
D607	E-4
D608	E-4
D609	D-5
D613	B-4
D621	C-5
D650	C-10
D651	E-11
IC601	E-8
IC602	F-4
IC603	E-6
IC604	D-4
IC650	C-11
IC701	I-7
Q600	G-7
Q601	F-6
Q602	F-6
Q603	D-6
Q604	C-6
Q605	D-6
Q606	D-6
Q607	C-9
Q731	J-3
Q761	G-6
Q831	J-3
Q860	J-10
Q861	G-6
Q862	J-10

6-10. SCHEMATIC DIAGRAM – MAIN BOARD (1/2) –



6-11. SCHEMATIC DIAGRAM – MAIN BOARD (2/2) –

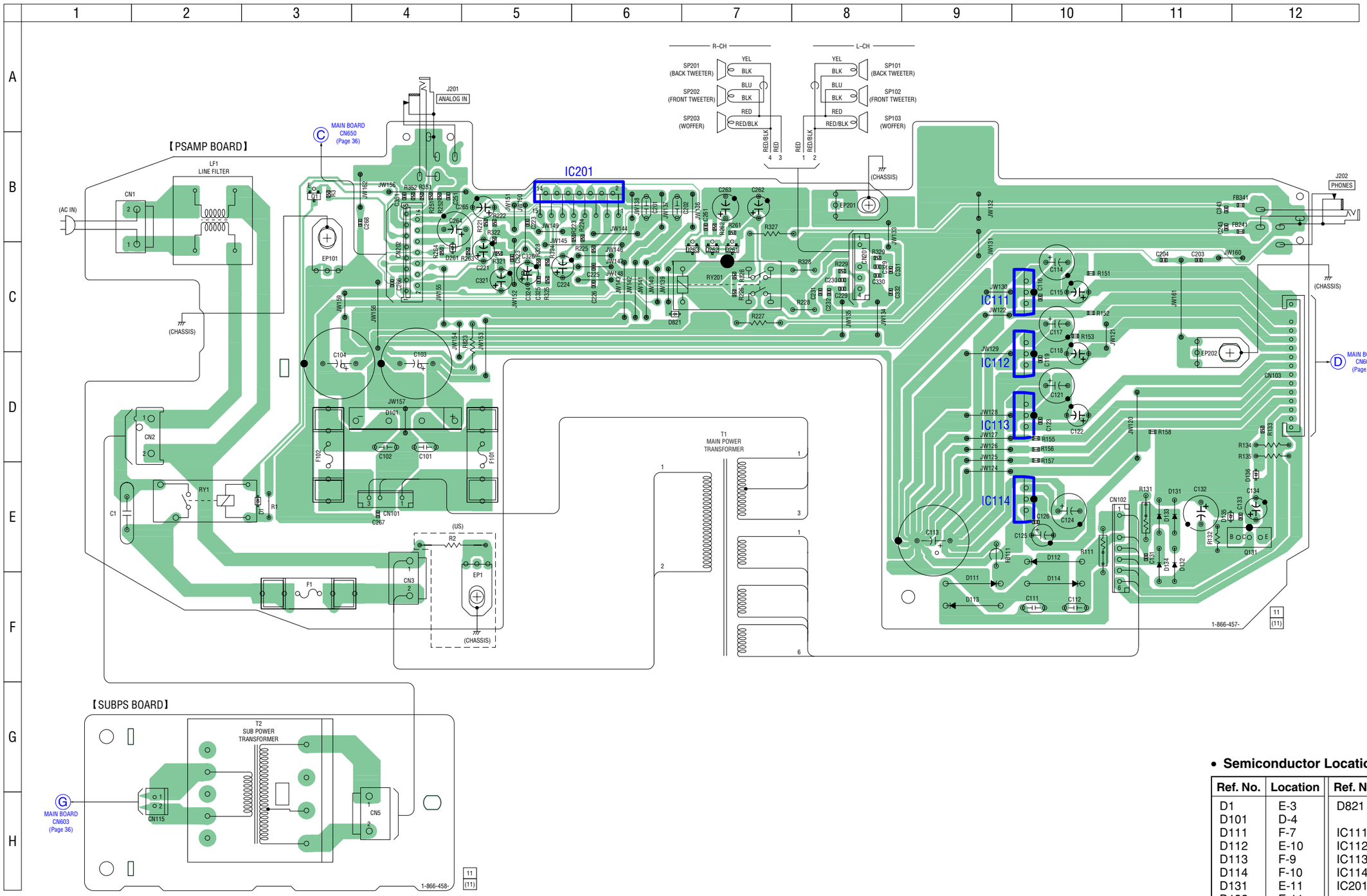
• See page 45 for Waveforms. • See page 48 for IC Block Diagrams. • See page 52 for IC Pin Function Description.



6-12. PRINTED WIRING BOARDS – POWER SECTION –

• See page 30 for Circuit Boards Location.

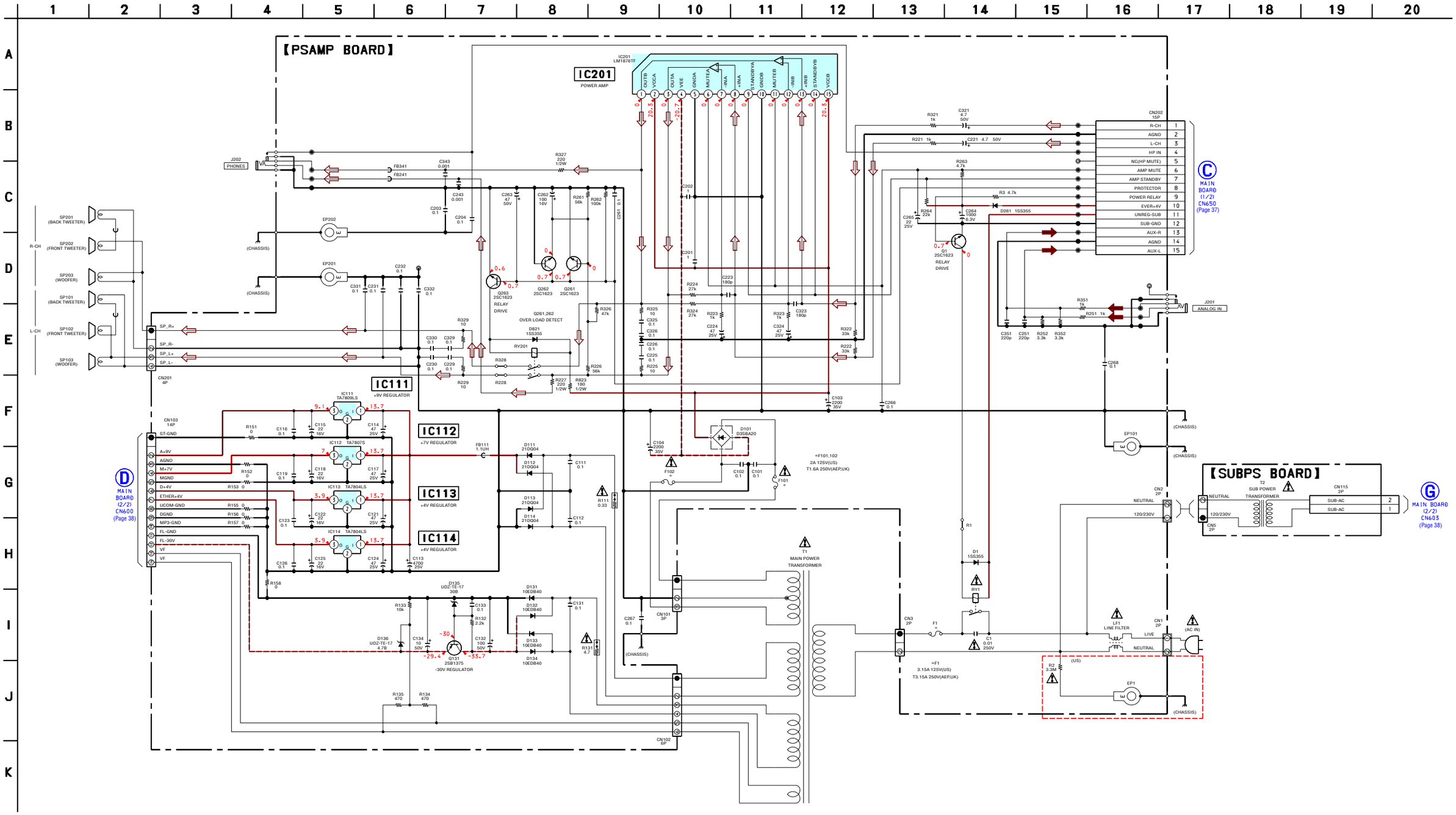
: Uses unleaded solder.



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	E-3	D821	C-6
D101	D-4		
D111	F-7	IC111	C-10
D112	E-10	IC112	D-10
D113	F-9	IC113	D-10
D114	F-10	IC114	E-10
D131	E-11	IC201	B-L
D132	E-11		
D133	E-11	Q1	B-3
D134	E-11	Q131	E-12
D135	E-11	Q261	C-7
D136	E-17	Q262	C-7
D261	C-4	Q263	C-7

6-13. SCHEMATIC DIAGRAM – POWER SECTION –

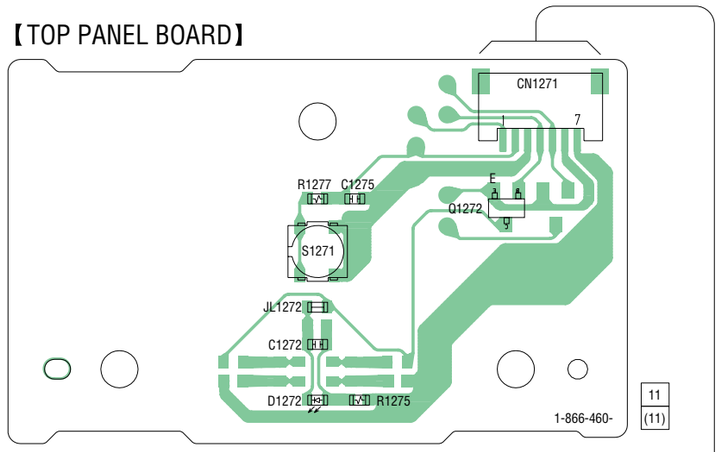


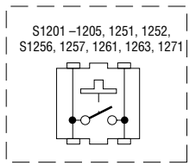
6-14. PRINTED WIRING BOARDS – PANEL SECTION –

• See page 30 for Circuit Boards Location.

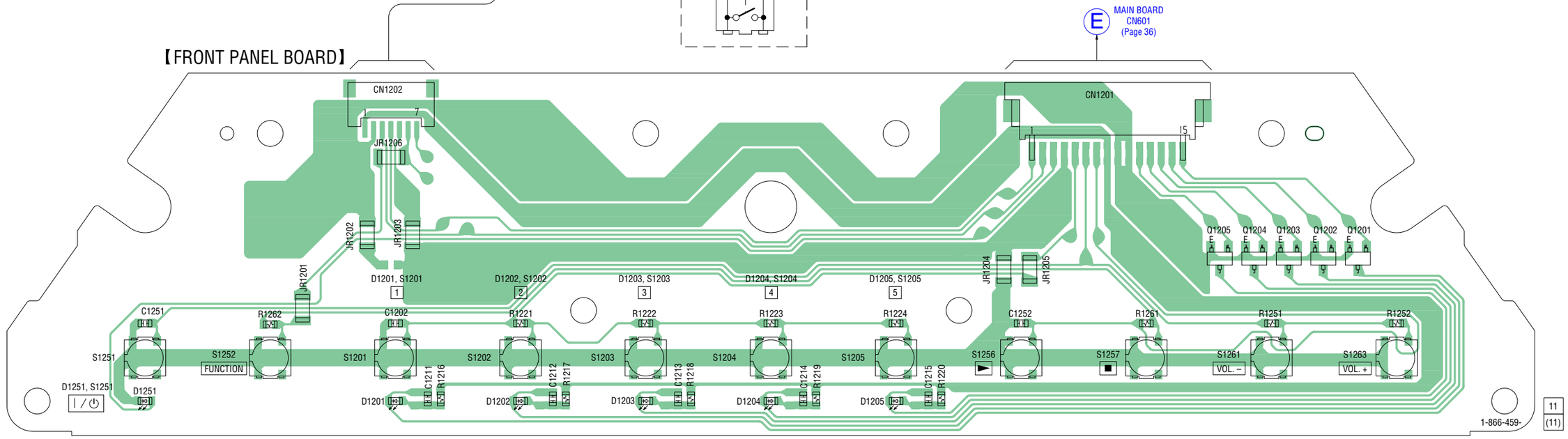
: Uses unleaded solder.

【TOP PANEL BOARD】





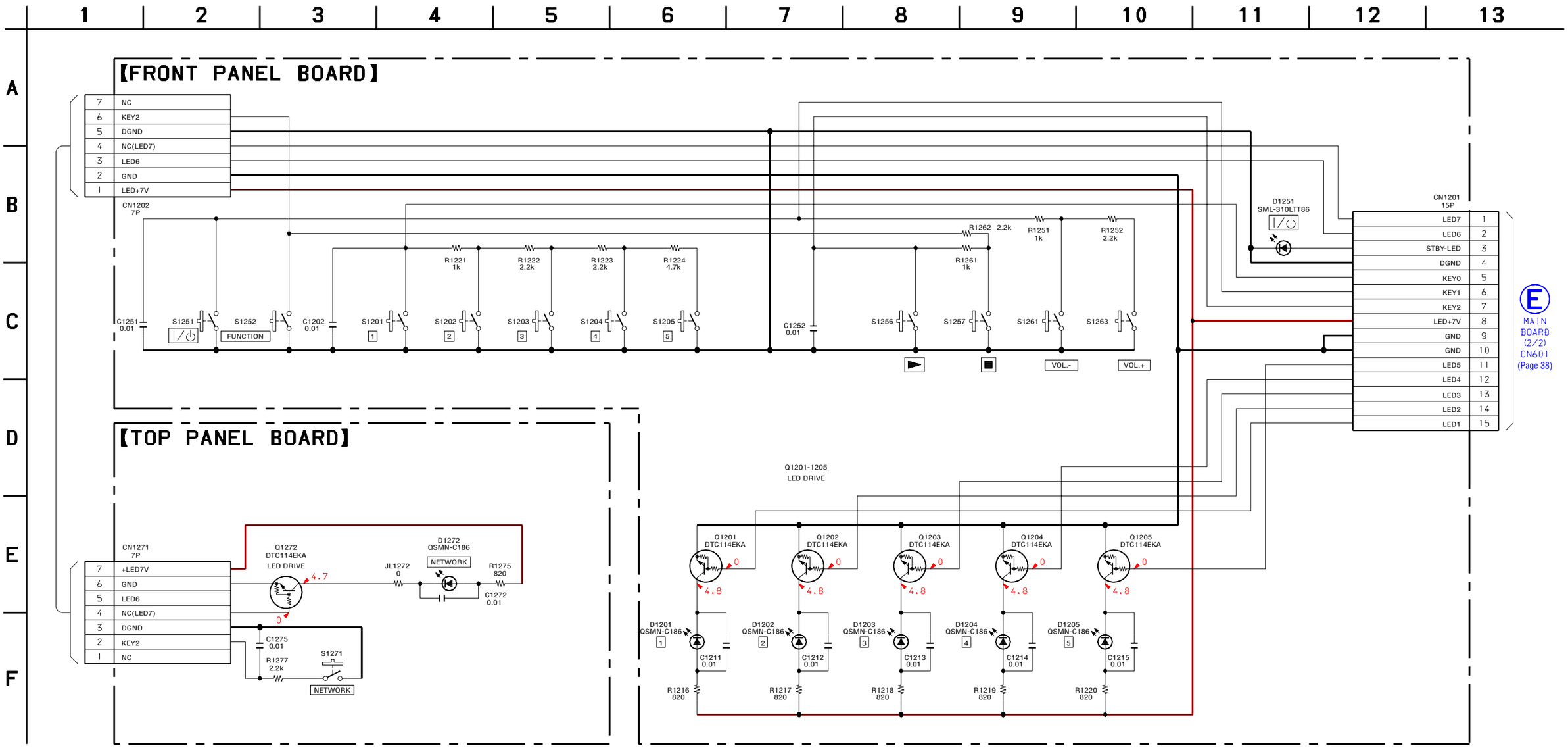
【FRONT PANEL BOARD】



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1201	H-4	Q1201	G-13
D1202	H-6	Q1202	G-13
D1203	H-7	Q1203	G-13
D1204	H-8	Q1204	G-12
D1205	H-9	Q1205	G-12
D1251	H-2	Q1272	B-4
D1272	C-3		

6-15. SCHEMATIC DIAGRAM – PANEL SECTION –

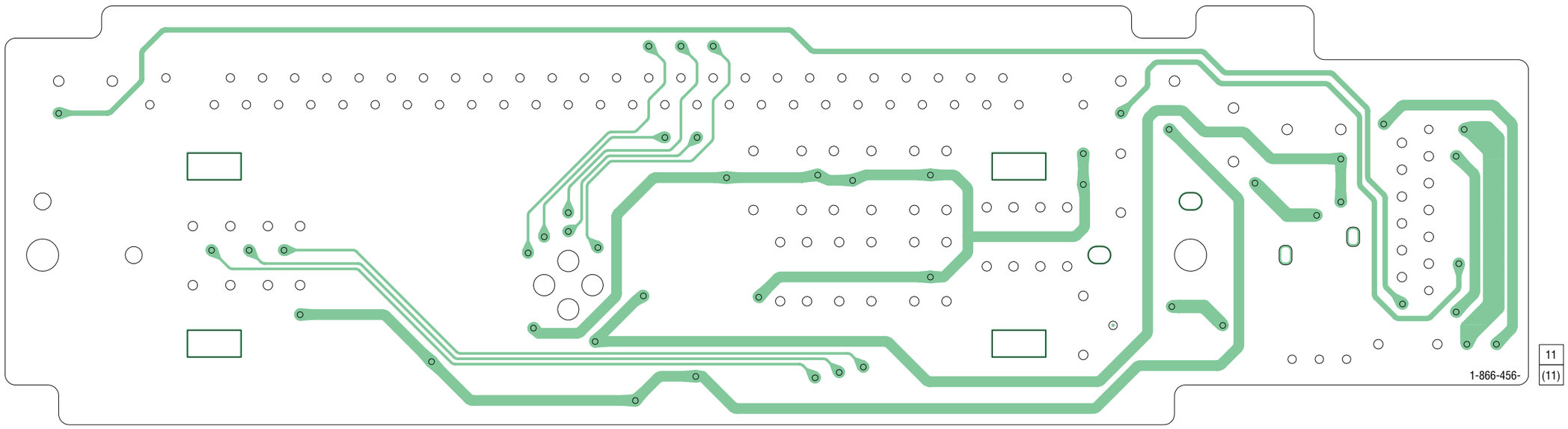


6-16. PRINTED WIRING BOARD – FL BOARD –

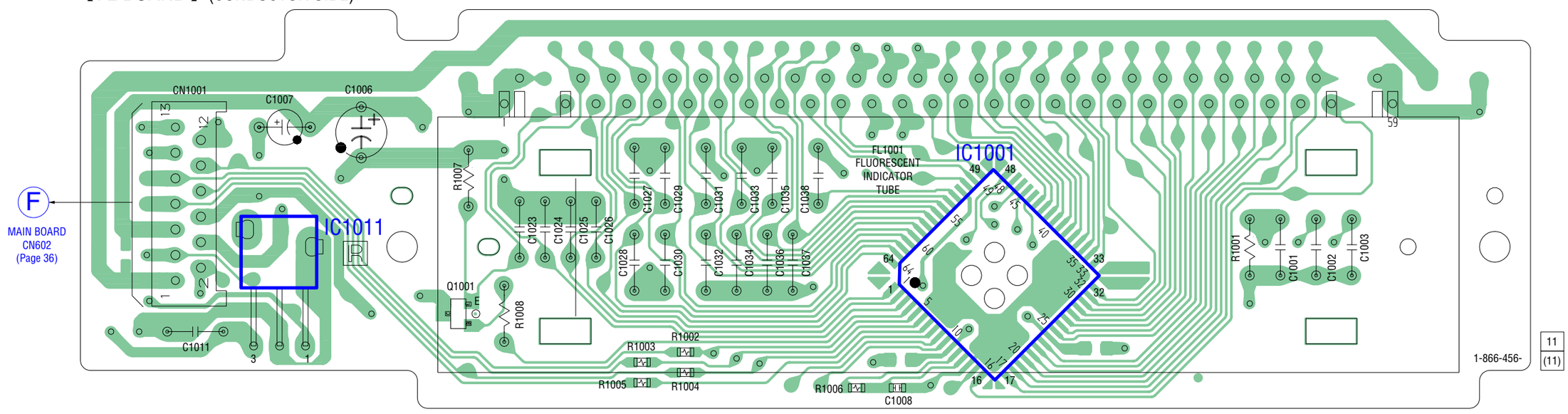
• See page 30 for Circuit Boards Location.

: Uses unleaded solder.

【FL BOARD】(COMPONENT SIDE)

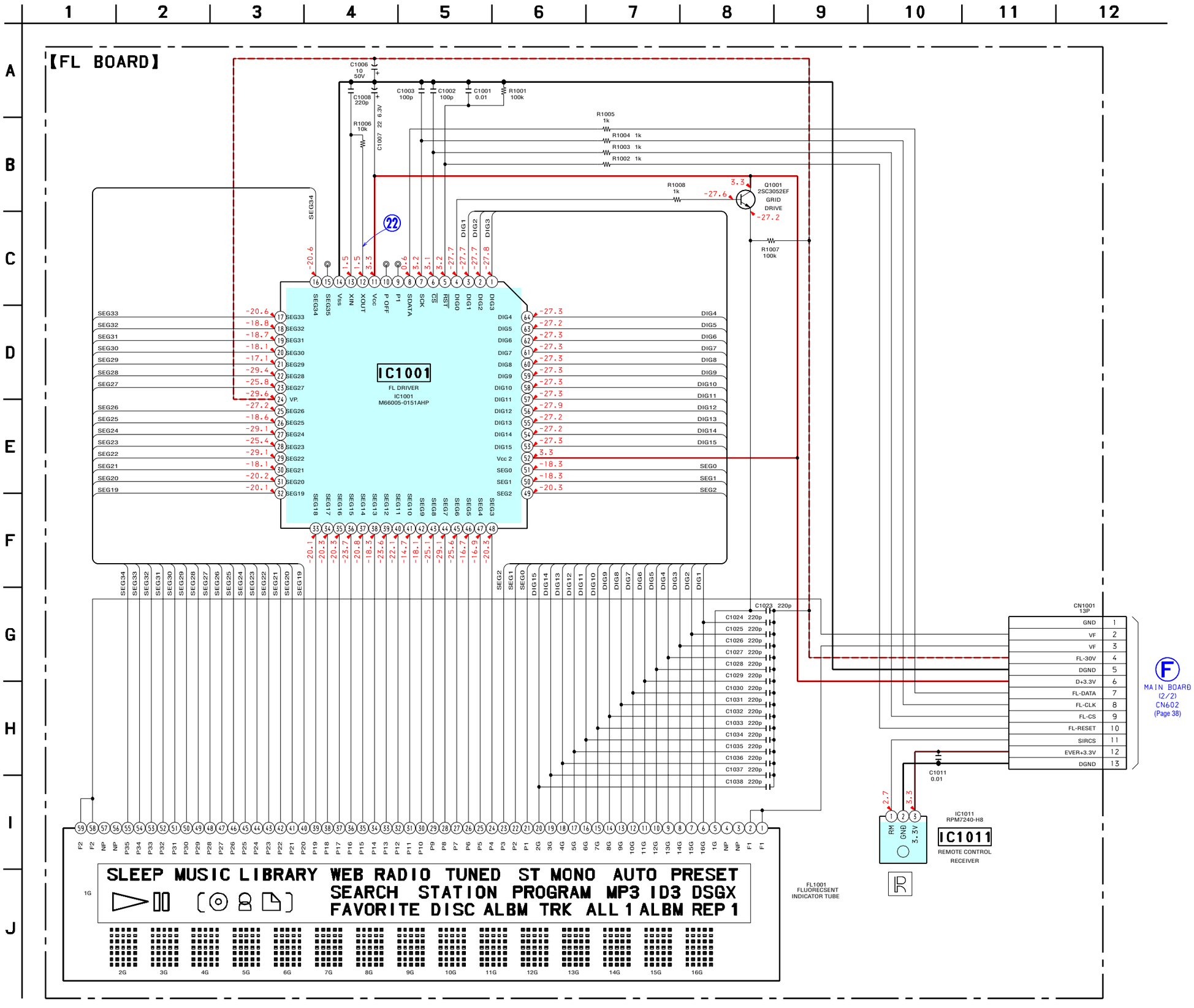


【FL BOARD】(CONDUCTOR SIDE)



6-17. SCHEMATIC DIAGRAM – FL BOARD –

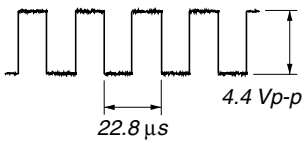
• See page 45 for Waveforms.



• **Waveforms**

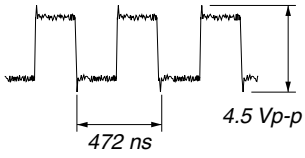
– CD Board –

① IC101 ⑥③ (LRCK) (CD PLAY mode)



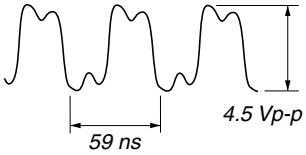
1 V/DIV, 10 µs/DIV

② IC101 ⑥⑥ (BCK) (CD PLAY mode)



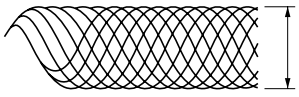
1 V/DIV, 200 ns/DIV

③ IC101 ⑦⑦ (XTAO) (CD PLAY mode)



1 V/DIV, 20 ns/DIV

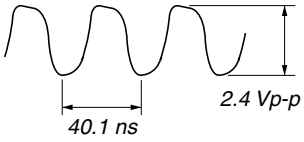
④ IC101 ④① (RFACO) (CD PLAY mode)



200 mV/DIV, 500 ns/DIV

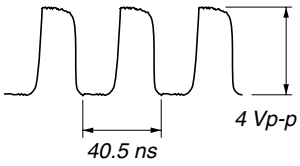
– ETHER Board –

⑪ IC501 ④⑤ (XO)



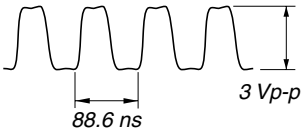
1 V/DIV, 20 ns/DIV

⑫ IC502 ⑪⑤ (OSC1N)



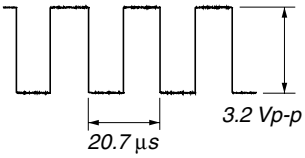
1 V/DIV, 20 ns/DIV

⑬ IC502 ⑫⑤ (OSC0N)



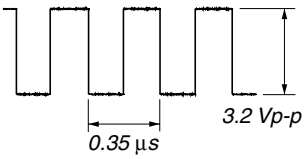
1 V/DIV, 50 ns/DIV

⑭ IC505 ① (LRCIN)



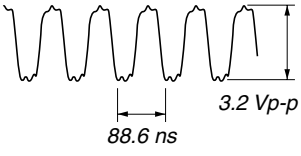
1 V/DIV, 10 µs/DIV

⑮ IC505 ③ (BCKIN)



1 V/DIV, 0.2 µs/DIV

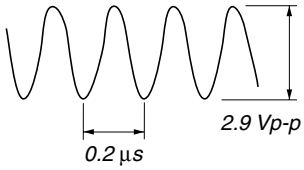
⑯ IC505 ④ (MCLK)



1 V/DIV, 50 ns/DIV

– MAIN Board –

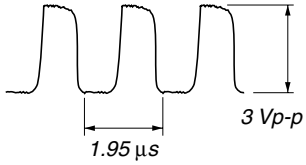
㉑ IC601 ⑮ (X2)



1 V/DIV, 0.1 µs/DIV

– FL Board –

㉒ IC1001 ⑫ (XOUT)

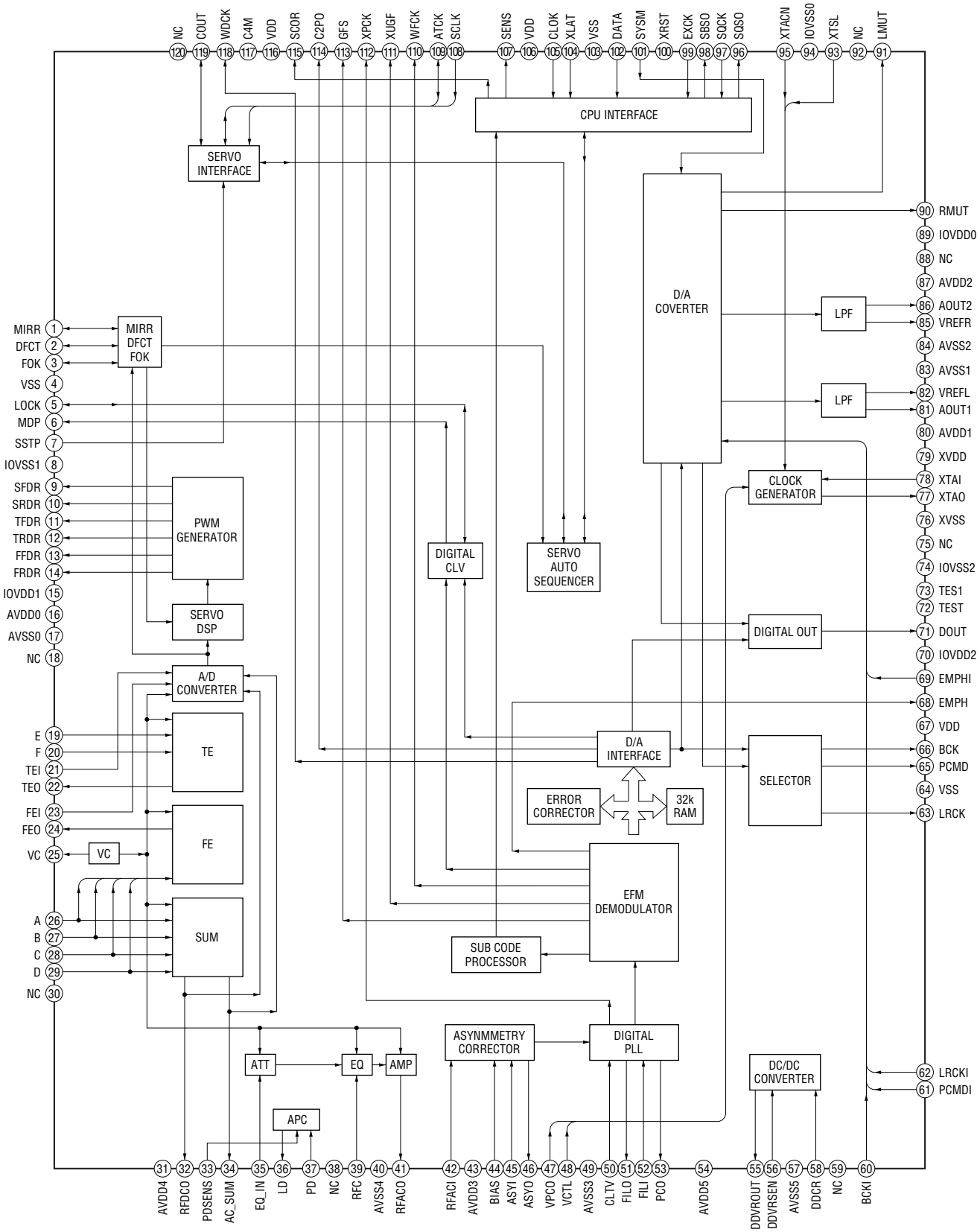


1 V/DIV, 1 µs/DIV

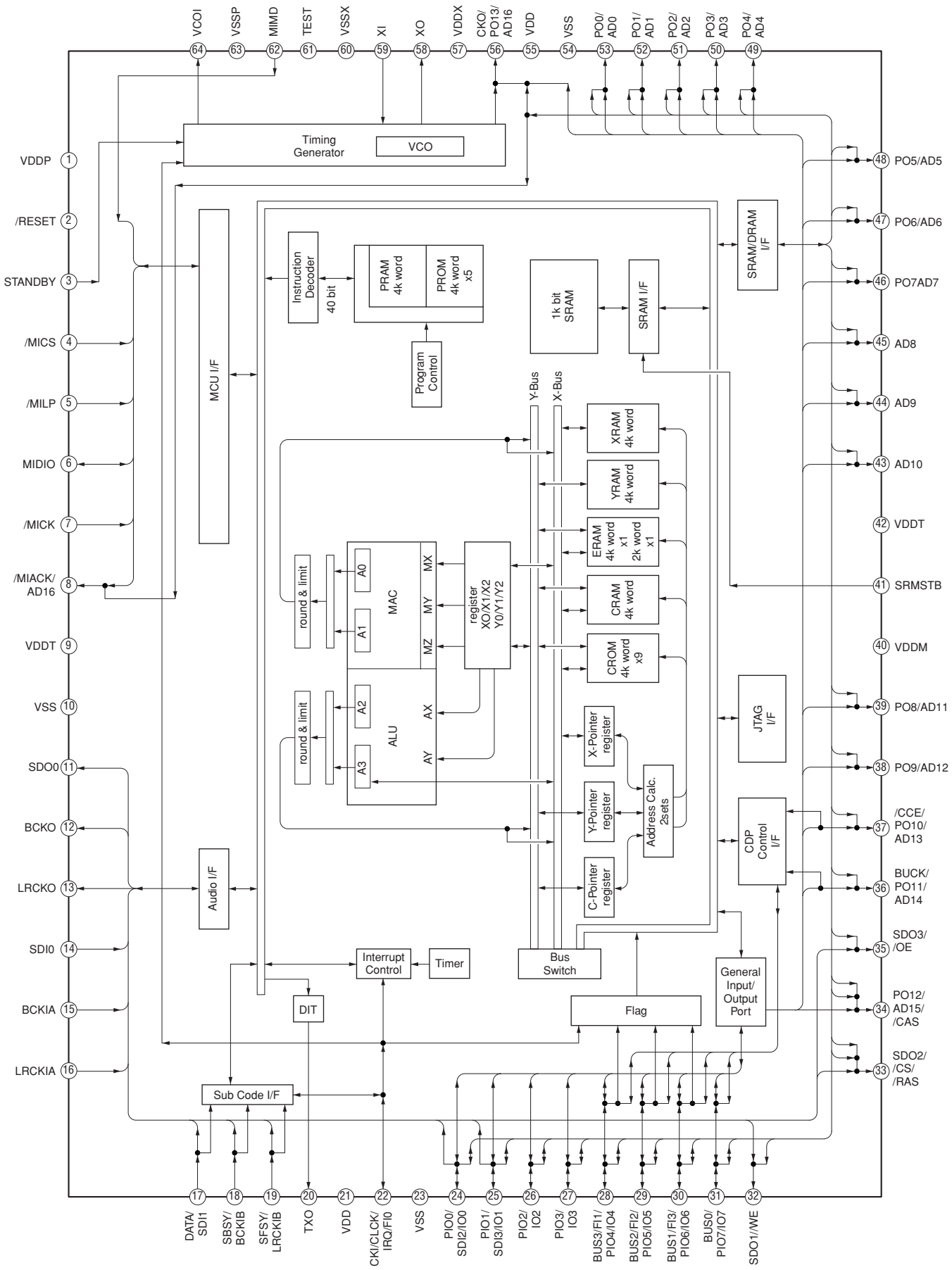
- **IC Block Diagrams**

– CD Board –

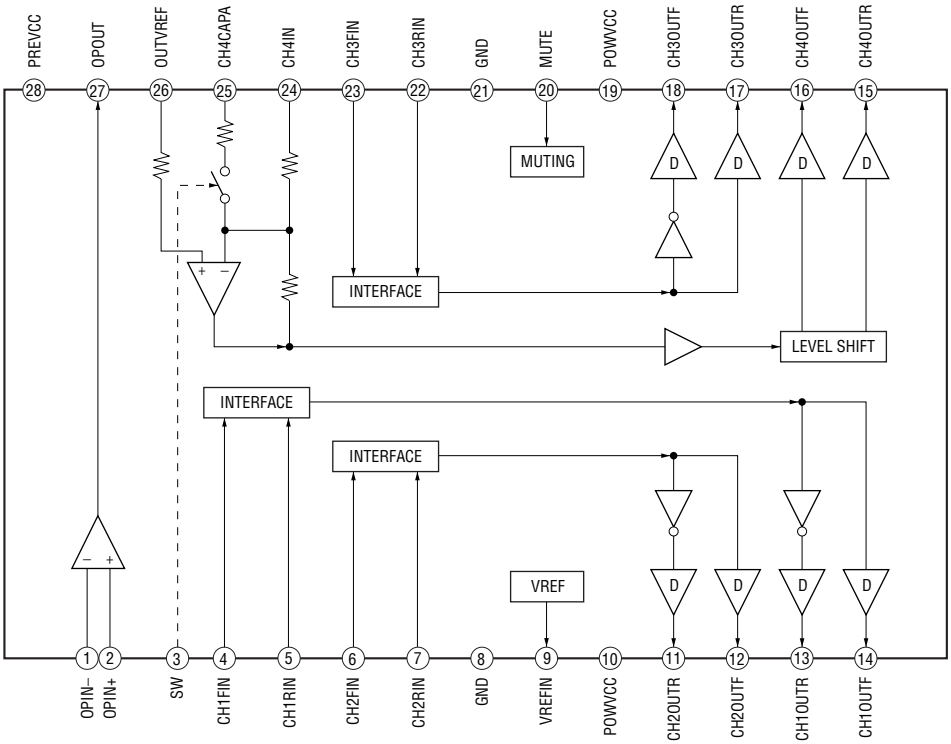
IC101 CXD3059AR



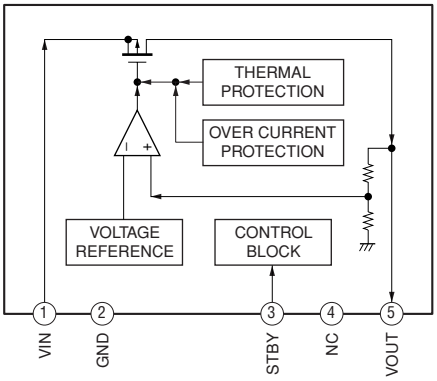
IC301 TC94A34FG-002



IC251 BA5947FM-E2

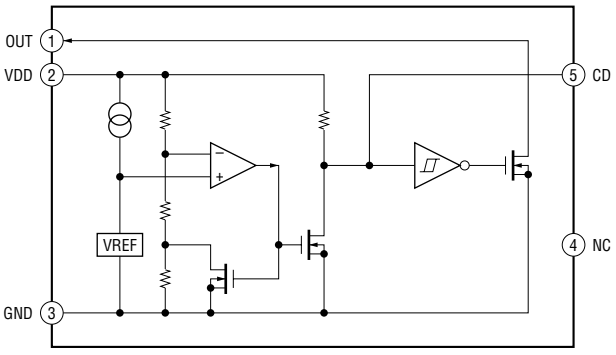


IC303 BH15FB1WG

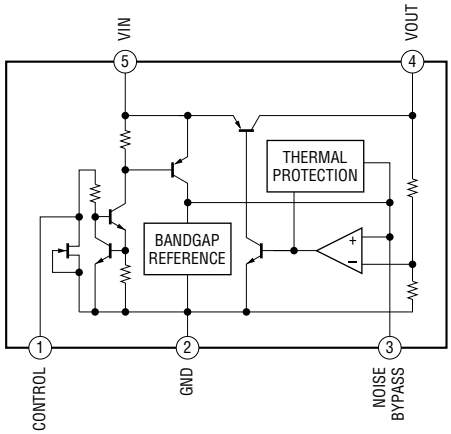


– MAIN Board –

IC602 PST3629NR

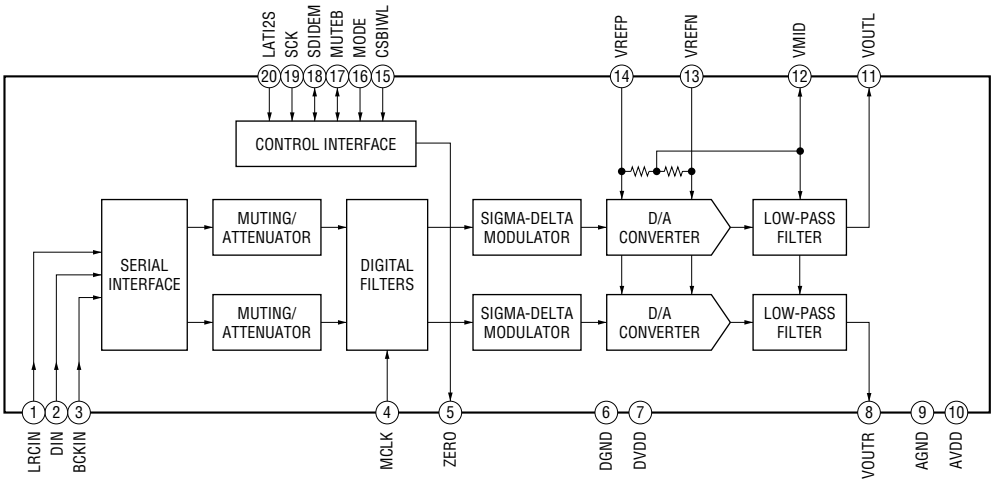


IC604 NJM2870F38 (TE2)

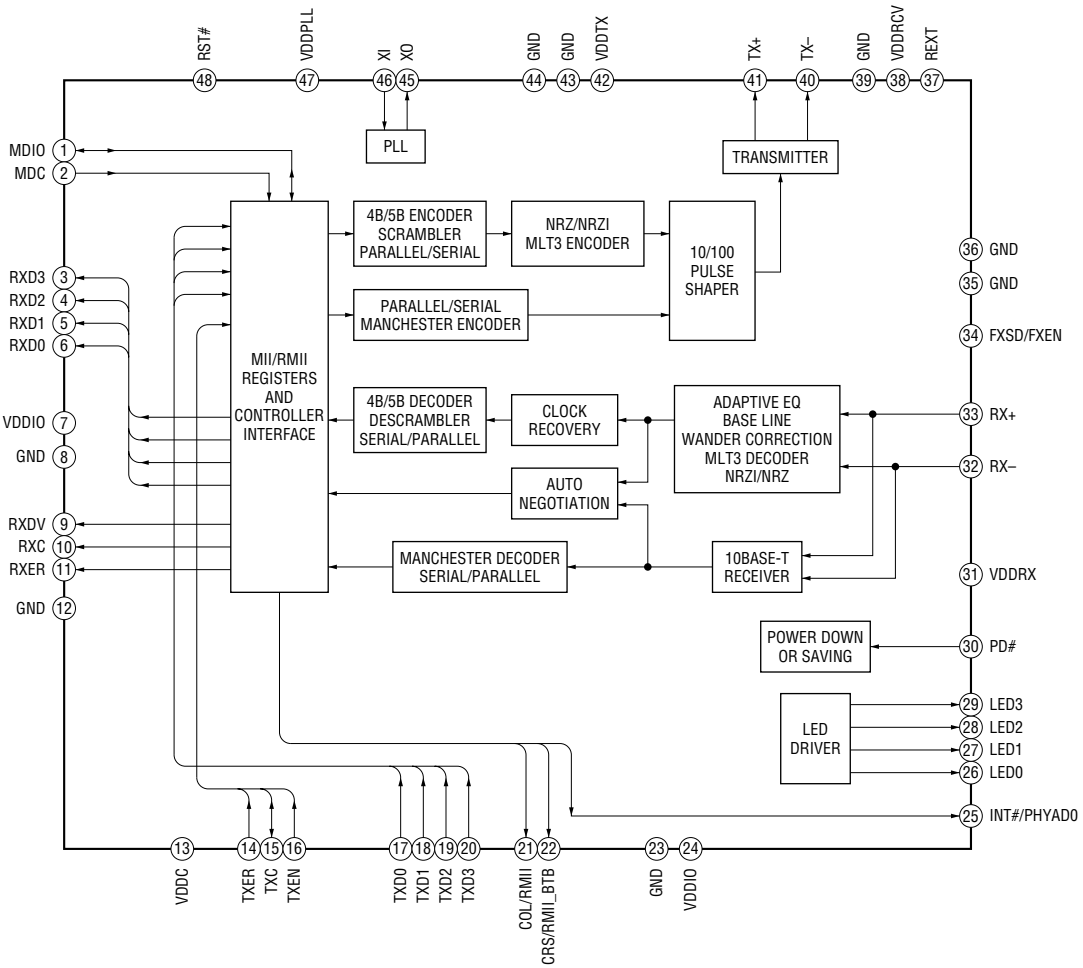


– ETHER Board –

IC505 WM8726SEDS/R



IC501 KSZ8721BL



- **IC Pin Function Description**

ETHER BOARD IC502 ML7201TB (ETHERNET CONTROLLER)

Pin No.	Pin Name	I/O	Pin Description
1	PIOC0	O	Serial control data output to the D/A converter
2	PIOC1	O	Power down signal output to the Ethernet interface
3	PIOC2	O	Reset signal output to the Ethernet interface
4	TEST2	I	Test mode setting terminal
5	PLLVDD	-	Power supply terminal (+2.5V)
6	PLLGND	-	Ground terminal
7	PLLMODE	I	PLL mode setting terminal
8 to 14	XD0 to XD6	I/O	Two-way data bus with the SD-RAM and flash memory
15	TEST1	I	Test mode setting terminal
16	XD7	I/O	Two-way data bus with the SD-RAM and flash memory
17, 18	XD15, 14	I/O	Two-way data bus with the SD-RAM and flash memory
19	GND	-	Ground terminal
20 to 23	XD13 to XD10	I/O	Two-way data bus with the SD-RAM and flash memory
24	VDD_IO	-	Power supply terminal (+3.3V)
25, 26	XD9, XD8	I/O	Two-way data bus with the SD-RAM and flash memory
27	XA16	O	Address signal output terminal Not used
28	GND	-	Ground terminal
29, 30	XA17, XA18	O	Address signal output terminal Not used
31 to 34	XA23 to XA20	O	Address signal output terminal Not used
35	XA19	O	Address signal output to the SD-RAM and flash memory
36	VDD_IO	-	Power supply terminal (+3.3V)
37 to 42	XA10 to XA5	O	Address signal output to the SD-RAM and flash memory
43	VDDCORE	-	Power supply terminal (+2.5V)
44, 45	XA15, XA14	O	Address signal output to the flash memory
46	GND	-	Ground terminal
46	XA13	O	Address signal output to the flash memory
46	XA12	O	Address signal output to the SD-RAM and flash memory
49	GND	-	Ground terminal
50	XA11	O	Address signal output to the SD-RAM and flash memory
51	VDD_IO	-	Power supply terminal (+3.3V)
52	XA0	O	Address signal output terminal Not used
53 to 56	XA1 to XA4	O	Address signal output to the SD-RAM and flash memory
57	XOEN	O	Output enable signal output to the flash memory
58	XWEN	O	Write enable signal output to the SD-RAM and flash memory
59	PIOB6/XRAMCSN	I/O	Not used
60	XROMCS_N	O	Chip select signal output to the flash memory
61	PIOA0/XIOCSN	O	Chip select signal output terminal Not used
62	PIOB7/XWAIT	O	Wait signal output terminal Not used
63, 64	XBSN1, XBSN0	O	Byte select signal output for external memory Not used
65	GND	-	Ground terminal
66	VDD_IO	-	Power supply terminal (+3.3V)
67	XCASN	O	Column address strobe signal output to the SD-RAM
68	XRASN	O	Row address strobe signal output to the SD-RAM
69	XSDCLK	O	Serial data transfer clock signal output to the SD-RAM
70	XSDCSN	O	Chip select signal output to the SD-RAM
71	XSDCKE	O	Clock enable signal output to the SD-RAM
72	XDQM1	O	Write mask signal output to the SD-RAM (upper byte)
73	XDQM0	O	Write mask signal output to the SD-RAM (lower byte)
74	CRS_N	I	Career sense signal input terminal
75	COL_N	I	Collision detection signal input terminal
76 to 79	TXD3 to TXD0	O	Ethernet transmit data output terminal
80	TXEN_N	O	Ethernet transmit data enable signal output terminal
81	VDD_IO	-	Power supply terminal (+3.3V)
82	TXCLK_N	I/O	Ethernet transmit data transfer clock signal input/output terminal

Pin No.	Pin Name	I/O	Pin Description
83	TXER_N	O	Ethernet transmit error signal output terminal
84	RXER_N	I	Ethernet receive error signal input terminal
85	VDD_CORE	-	Power supply terminal (+3.3V)
86	RXCLK_N	I	Ethernet receive data transfer clock signal input terminal
87	RXDV_N	I	Receive data valid input terminal
88	GND	-	Ground terminal
89	RXD0	I	Ethernet receive data input terminal
90	GND	-	Ground terminal
91 to 93	RXD1 to RXD3	I	Ethernet receive data input terminal
94	MDC	O	Serial data output to the Ethernet interface
95	MDIO	I/O	Serial data transfer clock signal input/output terminal with the Ethernet interface
96	SAICLK	I/O	Not used
97	MDO/SDO0	I/O	Not used
98	MDI/SDI0	I/O	Not used
99	MSK/SCLK0	I/O	Not used
100	MCS	I/O	Not used
101	SCL/SCLK1	I/O	IIC bus clock signal input/output terminal with the system controller
102	SDA/SDI1	I/O	IIC two-way data bus with the system controller
103	SDO1	I/O	Not used
104	VDD_CORE	-	Power supply terminal (+3.3V)
105	PIOA7/TXD	I/O	Not used
106	PIOA6/RXD	I/O	Not used
107	LRCK	O	L/R sampling clock signal output to the D/A converter
108	DOUT	O	Serial audio data output to the D/A converter
109	BCLK	O	Bit clock signal output to the D/A converter
110	MCLK	O	Serial audio data transfer clock signal output to the D/A converter
111	PIOB5/DATAIN	I/O	Not used
112	TEST0	I	Test mode setting terminal
113	VDD_IO	-	Power supply terminal (+3.3V)
114	OSC1	I	System clock input terminal (24.576 MHz)
115	OSC1N	O	System clock output terminal (24.576 MHz)
116	GND	-	Ground terminal
117	NTRST	I	Reset signal input for JTAG Not used
118	TCK	I	Clock signal input terminal for JTAG Not used
119	TMS	I	Mode select signal input terminal for JTAG Not used
120	TDI	I	Data input terminal for JTAG Not used
121	TDO	O	Data output terminal for JTAG Not used
122	RESETN	I	System reset signal input from the system controller
123	GND	-	Ground terminal
124	OSC0	I	System clock input terminal (11.2896 MHz)
125	OSC0N	O	System clock output terminal (11.2896 MHz)
126	VDD_IO	-	Power supply terminal (+3.3V)
127	PIOC7	I/O	Muting on/off control signal input/output to the D/A converter
128	PIOC6	I	Power down signal input to the system controller

MAIN BOARD IC601 μPD703261YGF-S06-JBT-A (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Pin Description
1	MODEL	I	Setting terminal for model discrimination
2	DEST	I	Setting terminal for the destination
3	AVREF0	I	Reference voltage (+3.3V) input terminal
4	AVSS	-	Ground terminal
5	NO_USE1	O	Not used
6	SOFT-CHECK	O	Soft check terminal
7	AVREF1	I	Reference voltage (+3.3V) input terminal
8	STBY_LED	O	Standby LED drive signal output terminal
9	NO_USE2	O	Not used
10	FLASH0	I	Internal flash memory data write control signal input terminal
11	VDD	-	Power supply terminal (+3.3V)
12	REGC	-	Regulator control terminal
13	VSS	-	Ground terminal
14	X1	I	Main system clock input terminal (5 MHz)
15	X2	O	Main system clock output terminal (5 MHz)
16	RESET	I	System reset signal input from the reset signal generator
17	XT1	I	Sub system clock input terminal Not used
18	XT2	O	Sub system clock output terminal Not used
19	SELF_PROG	O	For self programming terminal Normally not used
20	KEY_INT	I	System wake up signal input by key input
21	RM_INT	I	System wake up signal input by SIRCS input
22	(CAN'T USE)	I	Not used
23	AC_CUT	I	AC off detection signal input terminal "L": AC off
24	FLASH_DI	I	Internal flash memory data writing signal input terminal Normally not used
25	FLASH_DO	O	Internal flash memory data reading signal output terminal Normally not used
26	FLASH_CLK	O	Clock signal output for internal flash memory data writing Normally not used
27	FL_DATA	O	Serial data output to the fluorescent display tube driver
28	SIRCS	I	SIRCS signal input terminal
29	FL_CLK	O	Serial data transfer clock signal output to the fluorescent display tube driver
30	FL_CS	O	Chip select signal output to the fluorescent display tube driver
31	FL_RESET	O	System reset signal output to the fluorescent display tube driver
32	HP_IN	I	Detection input for headphone plug
33	AMP_MUTING	O	Muting signal output to the power amplifier
34	AMP_STBY	O	Standby on/off control signal output to the power amplifier
35	EVSS	-	Ground terminal
36	EVDD	-	Power supply terminal (+3.3V)
37	I2C_DATA	I/O	I2C two-way data bus with the EEPROM
38	I2C_CLK	I/O	I2C data transfer clock signal input and output
39	LED7	O	LED drive signal output terminal
40	NO_USE3	O	Not used
41	SPK_RELAY	O	Speaker relay drive signal output terminal
42	POWER_RELAY	O	Power on/off relay drive signal output terminal
43	HP_MUTE	O	Headphone muting on/off control signal output terminal
44	LINE_MUTE	O	Line muting on/off control signal output terminal
45	GEQ_CLK	O	Serial data transfer clock signal output to the electrical volume
46	GEQ_DATA	O	Serial data output to the electrical volume
47	LED6	O	LED drive signal output terminal Not used
48 to 51	NO_USE5 to NO_USE8	O	Not used
52	I-SENS	I	Internal status (SENSE) input from the CD DSP
53	O-DATA	O	Serial data output to the CD DSP
54	O-CLOCK	O	Serial data transfer clock signal output to the CD DSP
55	I-MP3DATA	I	Serial data input from the CD DSP
56	O-MP3DATA	O	Serial data output to the MP3 decoder
57	O-MP3CLK	O	Serial data transfer clock signal output to the MP3 decoder
58	I-SCOR	I	Subcode Q sync (SCOR) input from the CD DSP

Pin No.	Pin Name	I/O	Pin Description
59	NO_USE9	O	Not used
60	RDS_CLK	I	RDS serial data transfer clock signal input from the RDS decoder (AEP, UK models only)
61	RDS_DATA	I	RDS serial data input from the RDS decoder (AEP, UK models only)
62	PLL-CLK	O	PLL serial data transfer clock signal output to the tuner unit
63	PLL-DO	O	PLL serial data output to the tuner unit
64	PLL-DI	I	PLL serial data input from the tuner unit
65	PLL-CE	O	PLL serial chip enable signal output to the tuner unit
66, 67	NO_USE10, NO_USE11	O	Not used
68	TUNED	I	Tuning detection signal input from the tuner unit
69	O-XLT	O	Latch signal output to the CD DSP
70	O-XTCN	O	OSC control signal output to the CD DSP
71	BVSS	-	Ground terminal
72	BVDD	-	Power supply terminal (+3.3V)
73	O-XRST	O	System reset signal output to the CD DSP
74	O-CD_ON	O	Power on/off control signal output for the CD mechanism deck section Not used
75	CD_OPEN_CLOSE	I	CD lid open/close detection switch input terminal "L" is input when the lid is closed
76	ETHER-NRESET	O	System reset signal output to the Ethernet block
77	ETHER-PDOWN	O	Power down signal output to the Ethernet controller
78	FLASH1	O	Internal flash memory data writing signal output terminal
79, 80	NO_USE12, NO_USE13	O	Not used
81	O-MP3_STBY	O	Standby on/off control signal output to the MP3 decoder
82	I-MP3_REQ	I	Data transfer request signal input from the MP3 decoder
83	I-MP3_ACK	I	Acknowledge signal input from the MP3 decoder
84	O-MILP	O	Serial data latch pulse output to the MP3 decoder
85	O-MICS	O	Chip select signal output to the MP3 decoder
86	O-MP3RST	O	System reset signal output to the MP3 decoder
87	O-AMUTE	O	CD muting on/off control signal output terminal
88	DEVICE_ON_OFF	O	Power control signal output for peripheral device Not used
89 to 92	NO_USE14 to NO_USE17	O	Not used
93 to 97	LED5 to LED1	O	LED drive signal output terminal
98 to 100	KEY2 to KEY0	I	Front panel key input terminal (A/D input)

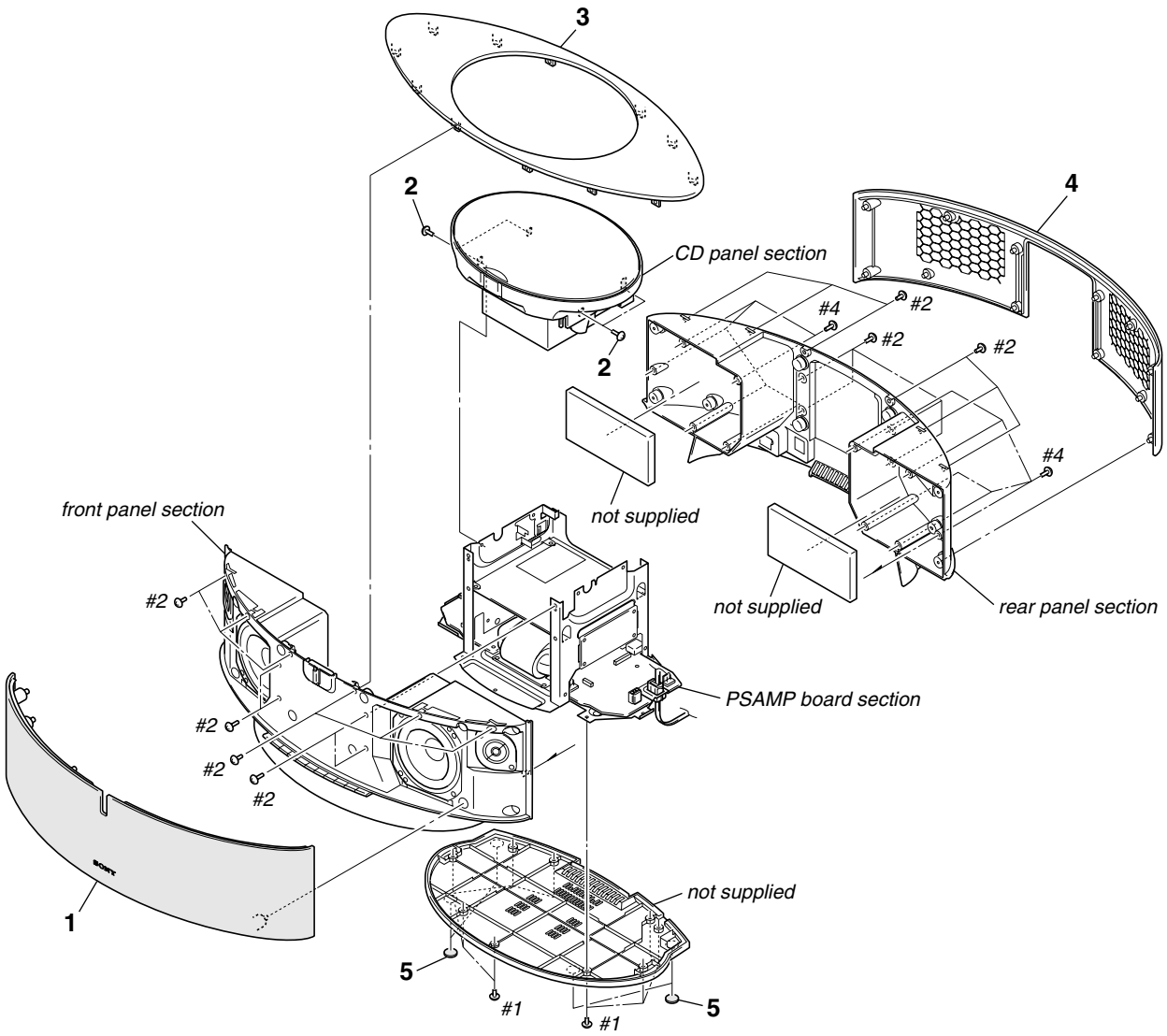
SECTION 7
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

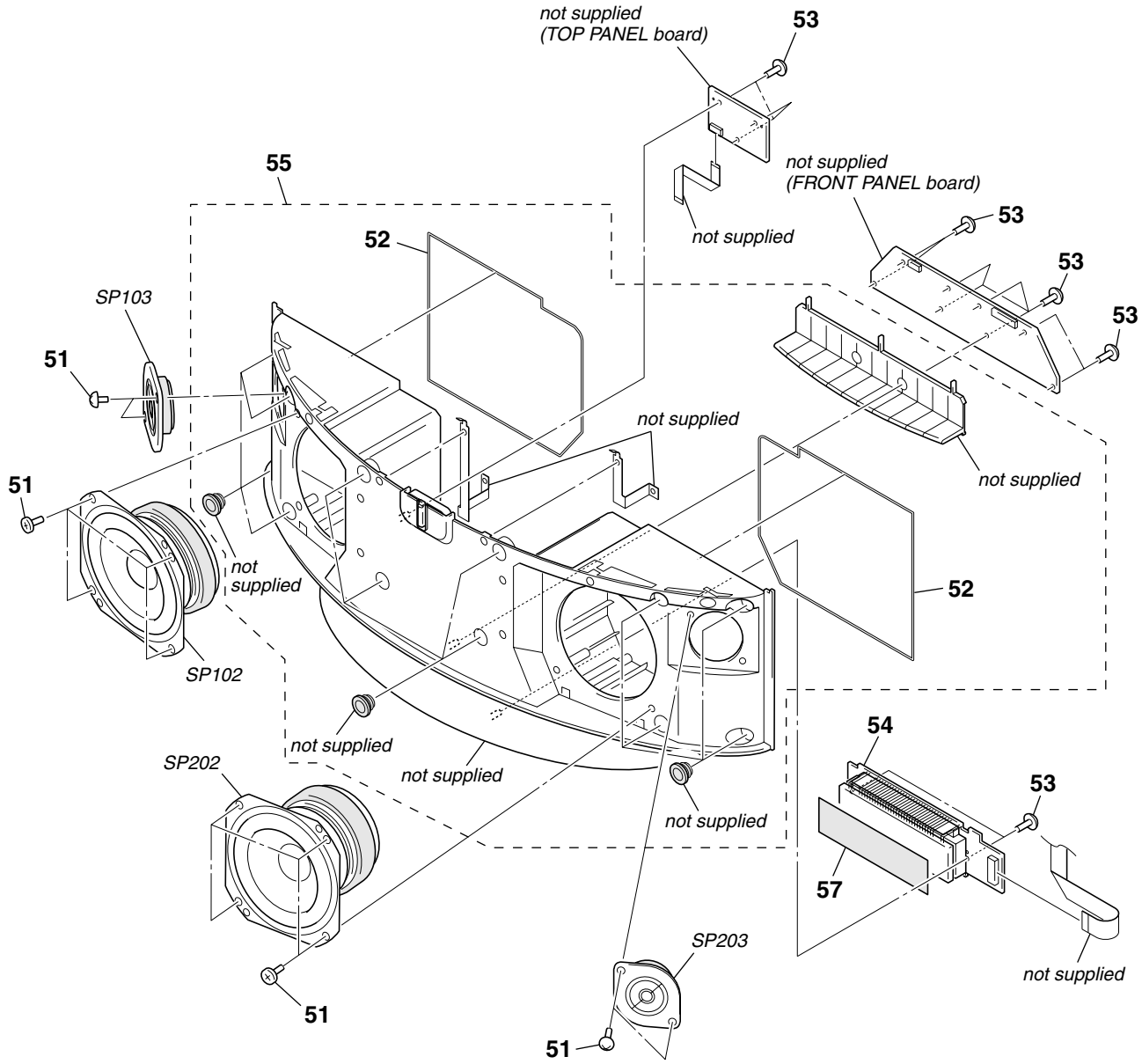
7-1. SPEAKER GRILL, TOP PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	X-2050-964-1	SPEAKER GRILL-F ASSY	
2	3-087-053-01	+BVTP2.6 (3CR)	
3	X-2050-989-1	TOP PANEL ASSY	
4	X-2050-965-1	SPEAKER GRILL-R ASSY	
5	2-586-863-01	FOOT, RUBBER	

Ref. No.	Part No.	Description	Remark
#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3 (US)	

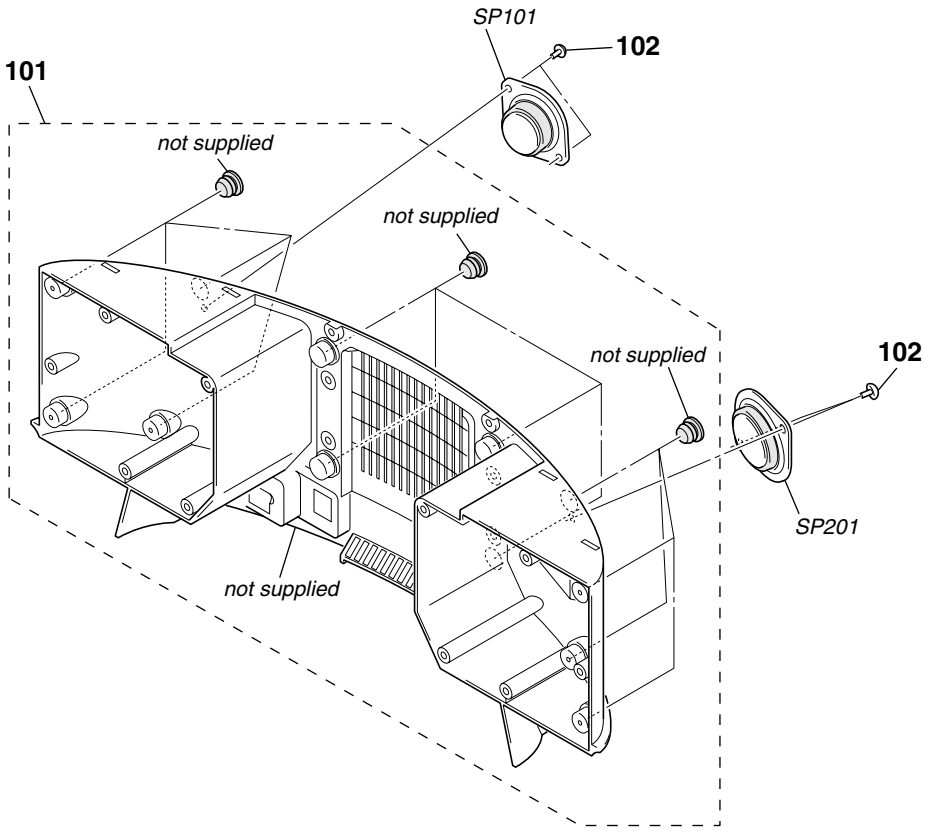
7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-986-971-01	SCREW (3.5)	
52	2-586-851-01	CUSHION	
53	3-087-053-01	+BVTP2.6 (3CR)	
54	A-1099-012-A	FL BOARD, COMPLETE	
55	X-2050-962-1	FRONT PANEL ASSY (AEP, UK)	
55	X-2059-957-1	FRONT PANEL ASSY (US)	

Ref. No.	Part No.	Description	Remark
57	2-586-844-01	FILTER	
SP102	1-826-071-11	LOUDSPEAKER (9 cm) (Woofer) (L-CH)	
SP103	1-826-072-11	LOUDSPEAKER (2.5 cm) (Front Tweeter) (L-CH)	
SP202	1-826-071-11	LOUDSPEAKER (9 cm) (Woofer) (R-CH)	
SP203	1-826-072-11	LOUDSPEAKER (2.5 cm) (Front Tweeter) (R-CH)	

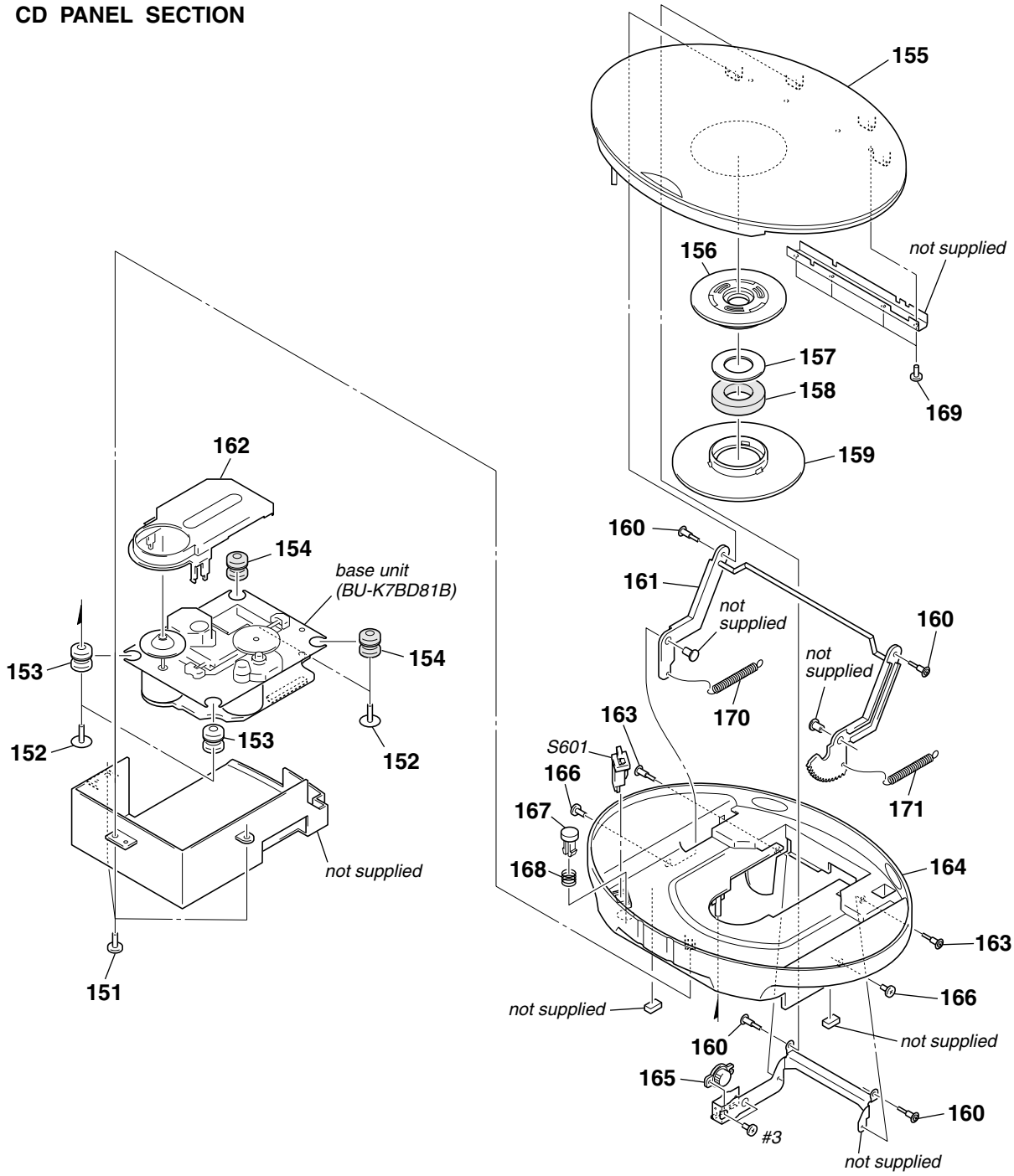
7-3. REAR PANEL SECTION



Ref. No.	Part No.	Description	Remark
101	X-2050-963-1	REAR PANEL ASSY	
102	4-986-971-01	SCREW (3.5)	

Ref. No.	Part No.	Description	Remark
SP101	1-826-072-11	LOUDSPEAKER (2.5 cm) (Rear Tweeter) (L-CH)	
SP201	1-826-072-11	LOUDSPEAKER (2.5 cm) (Rear Tweeter) (R-CH)	

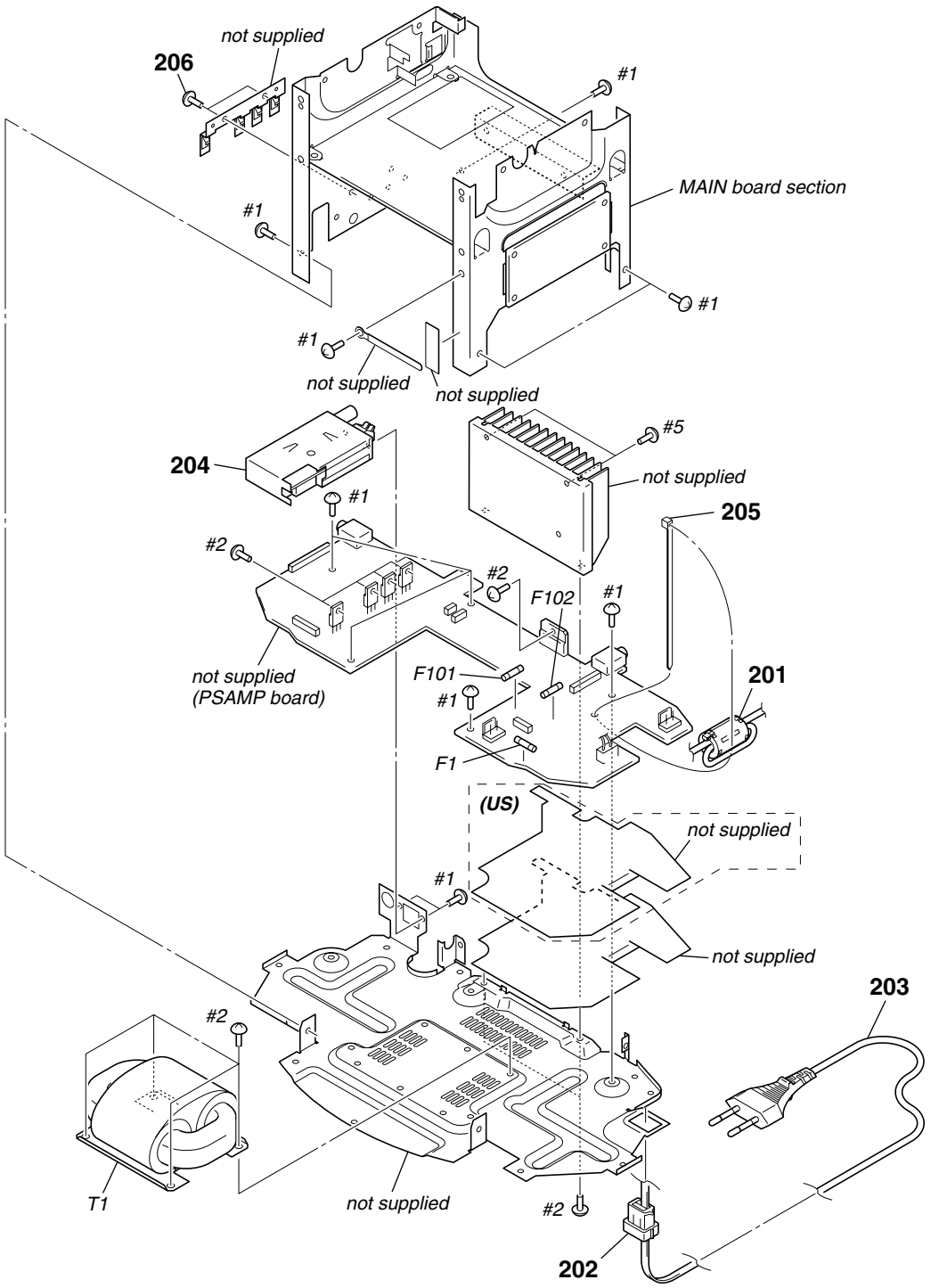
7-4. CD PANEL SECTION



Ref. No.	Part No.	Description	Remark
151	3-087-053-01	+BVTP2.6 (3CR)	
152	4-933-134-01	SCREW (+PTPWH M2.6X6)	
153	3-931-379-31	RUBBER, VIBRATION PROOF (GREEN)	
154	3-931-379-21	RUBBER, VIBRATION PROOF (RED)	
155	X-2050-961-1	LID CD ASSY	
156	4-246-193-01	HOLDER, CHUCK A	
157	4-246-191-11	PLATE, MAGNET	
158	4-249-238-01	MAGNET (18-30-5)	
159	4-246-192-01	BASE, CHUCK N	
160	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING	
161	2-560-374-01	ARM (CD DOOR-F)	
162	4-247-493-01	COVER, CD	

Ref. No.	Part No.	Description	Remark
163	4-989-494-12	SCREW (SLIDER), STEP	
164	2-560-378-01	CHASSIS CD	
165	3-712-786-12	DAMPER, OIL	
166	4-218-253-22	SCREW (M2.6), +BTTP	
167	2-595-409-01	SLIDER	
168	2-595-413-01	SPRING SLIDER	
169	4-218-253-32	SCREW (M2.6), +BTTP	
170	2-639-268-01	SPRING FL-L	
171	2-639-269-01	SPRING FL-R	
S601	1-692-960-11	SWITCH, PUSH (1 KEY)	(DISC LID OPEN DETECT)
#3	7-685-852-04	SCREW +BVTT 2X5 (S)	

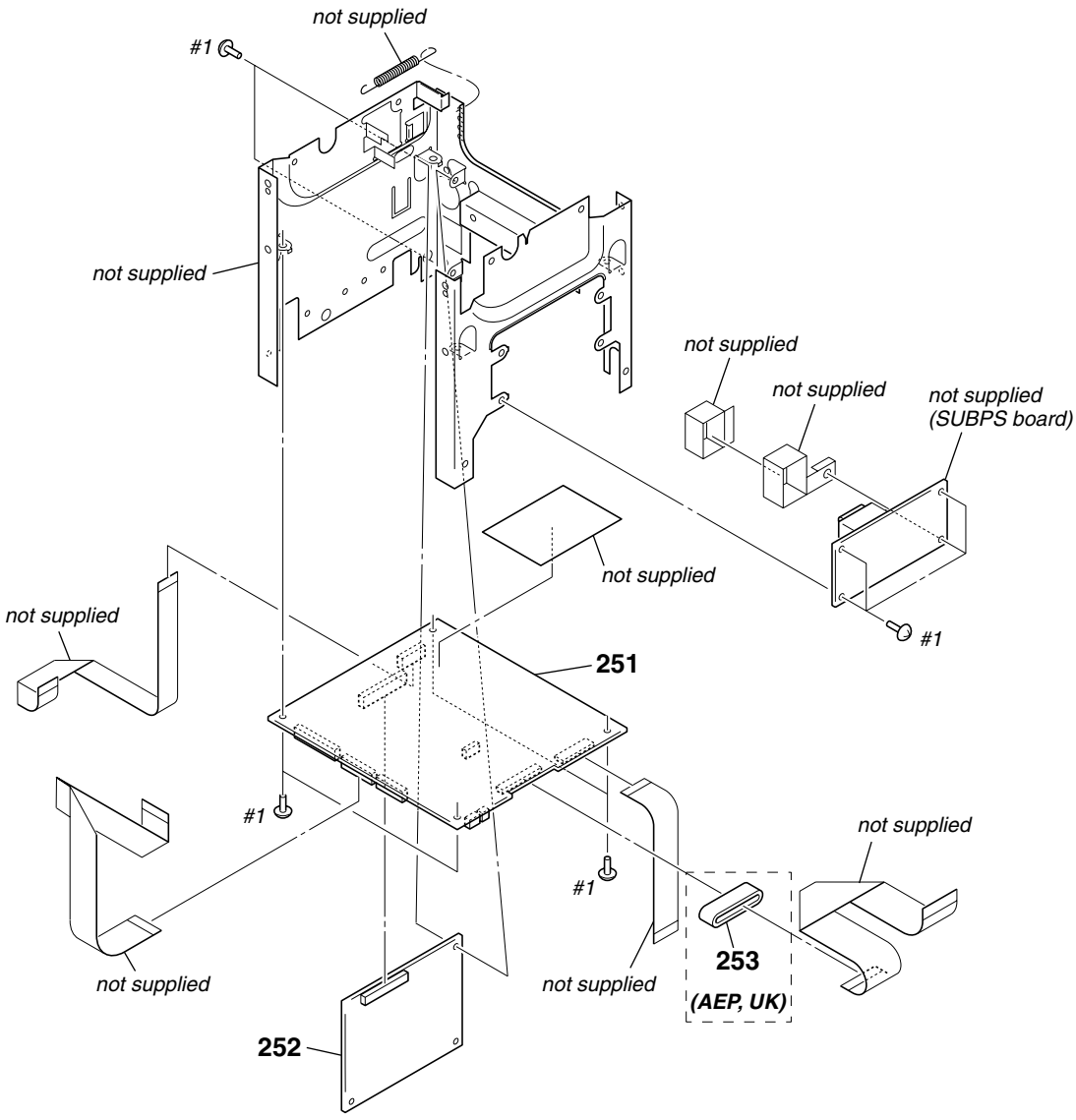
7-5. PSAMP BOARD SECTION



Ref. No.	Part No.	Description	Remark
201	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
* 202	3-703-244-00	BUSHING (2104), CORD	
⚠203	1-777-071-83	CORD, POWER (AEP, UK)	
⚠203	1-783-820-11	CORD, POWER (US)	
204	1-693-669-11	TUNER PACK (TM-10CE) (AEP, UK)	
204	1-693-672-11	TUNER PACK (TM-10U) (US)	
205	3-655-653-11	BAND (TAITON), BINDING	
206	4-218-253-32	SCREW (M2.6), +BTTP	
⚠F1	1-533-451-12	FUSE, GLASS TUBE (DIA. 5) (3.15A/125V) (US)	
⚠F1	1-533-470-12	FUSE, GLASS TUBE (DIA. 5) (T3.15A/250V)	(AEP, UK)

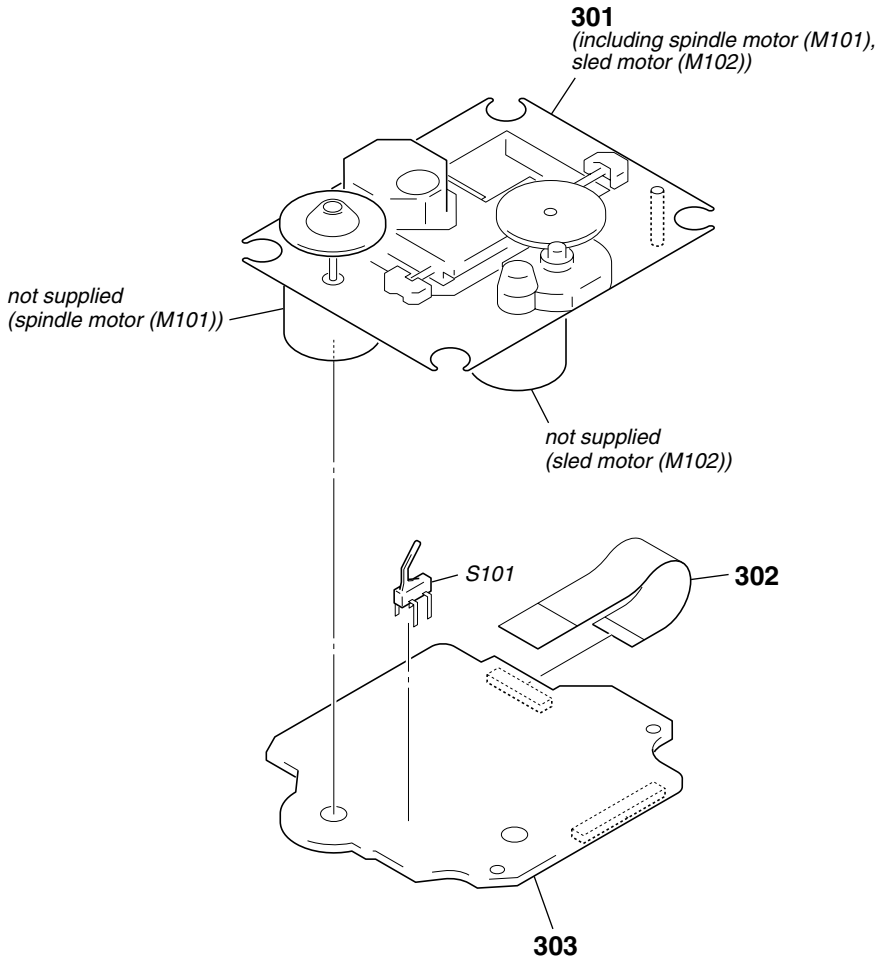
Ref. No.	Part No.	Description	Remark
⚠F101	1-533-449-12	FUSE, GLASS TUBE (DIA. 5) (2A/125V) (US)	
⚠F101	1-533-467-12	FUSE, GLASS TUBE (DIA. 5) (T1.6A/250V)	(AEP, UK)
⚠F102	1-533-449-12	FUSE, GLASS TUBE (DIA. 5) (2A/125V) (US)	
⚠F102	1-533-467-12	FUSE, GLASS TUBE (DIA. 5) (T1.6A/250V)	(AEP, UK)
⚠T1	1-443-694-11	TRANSFORMER, POWER (AEP, UK)	
⚠T1	1-443-695-11	TRANSFORMER, POWER (US)	
#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#5	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	

7-6. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
251	A-1099-011-A	MAIN BOARD, COMPLETE (AEP, UK)	
251	A-1106-721-A	MAIN BOARD, COMPLETE (US)	
252	A-1099-020-A	ETHER BOARD, COMPLETE	
253	1-469-854-11	CORE, FERRITE (AEP, UK)	
#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	

7-7. BASE UNIT (BU-K7BD81B)



Ref. No.	Part No.	Description	Remark
⚠301	8-820-221-01	OPTICAL PICK-UP BLOCK KSM-213EDP/C2NP (Including spindle motor (M101), sled motor (M102))	
302	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
303	A-1124-405-A	CD BOARD, COMPLETE	
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	

SECTION 8
ELECTRICAL PARTS LIST

CD

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA... : µA... uPA... : µPA...
  uPB... : µPB... uPC... : µPC...
  uPD... : µPD...
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-1124-405-A	CD BOARD, COMPLETE *********			
		< CAPACITOR >			
C10	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C11	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C14	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C15	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C16	1-115-156-11	CERAMIC CHIP	1uF		10V
C17	1-126-246-11	ELECT CHIP	220uF	20%	4V
C18	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C111	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C112	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C113	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C114	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C115	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C116	1-128-995-21	ELECT CHIP	100uF	20%	10V
C122	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C123	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C124	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C131	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C132	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C133	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C134	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C141	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C142	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C151	1-128-995-21	ELECT CHIP	100uF	20%	10V
C161	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C162	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C163	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C171	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C172	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C174	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C181	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C182	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C183	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C184	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C185	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C186	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C195	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C196	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
C203	1-128-995-21	ELECT CHIP	100uF	20%	10V
C209	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C210	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C211	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C212	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C213	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C251	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C252	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C255	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C257	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C258	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C259	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C260	1-128-394-11	ELECT CHIP	220uF	20%	10V
C302	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C303	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C305	1-126-246-11	ELECT CHIP	220uF	20%	4V
C306	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C307	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C308	1-126-208-21	ELECT CHIP	47uF	20%	4V
C309	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C310	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C311	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C312	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C313	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C314	1-126-208-21	ELECT CHIP	47uF	20%	4V
C315	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C316	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C317	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C318	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C320	1-216-864-11	SHORT CHIP	0		
		< CONNECTOR >			
CN101	1-770-425-11	CONNECTOR, FFC/FPC 16P			
CN201	1-818-350-11	CONNECTOR (FFC) 27P			
		< FERRITE BEAD >			
FB301	1-500-445-21	FERRITE, EMI (SMD) (2012)			
		< IC >			
IC101	8-752-425-12	IC CXD3059AR			
IC251	6-705-808-01	IC BA5947FM-E2			

CD **ETHER**

Ref. No.	Part No.	Description			Remark
IC301	6-705-365-01	IC TC94A34FG-002			
IC303	6-705-807-01	IC BH15FB1WG			
		< TRANSISTOR >			
Q10	6-551-120-01	TRANSISTOR 2SA2119K			
		< RESISTOR/FERRITE BEAD >			
R10	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R11	1-216-864-11	SHORT CHIP	0		
R12	1-216-845-11	METAL CHIP	100K	5%	1/10W
R13	1-218-446-11	METAL CHIP	1	5%	1/10W
R111	1-216-821-11	METAL CHIP	1K	5%	1/10W
R112	1-216-835-11	METAL CHIP	15K	5%	1/10W
R113	1-216-821-11	METAL CHIP	1K	5%	1/10W
R114	1-216-835-11	METAL CHIP	15K	5%	1/10W
R121	1-216-835-11	METAL CHIP	15K	5%	1/10W
R131	1-216-857-11	METAL CHIP	1M	5%	1/10W
R132	1-216-833-11	METAL CHIP	10K	5%	1/10W
R133	1-216-848-11	METAL CHIP	180K	5%	1/10W
R141	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R142	1-216-821-11	METAL CHIP	1K	5%	1/10W
R143	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R151	1-216-864-11	SHORT CHIP	0		
R161	1-216-809-11	METAL CHIP	100	5%	1/10W
R162	1-216-841-11	METAL CHIP	47K	5%	1/10W
R163	1-216-809-11	METAL CHIP	100	5%	1/10W
R165	1-216-864-11	SHORT CHIP	0		
R166	1-216-821-11	METAL CHIP	1K	5%	1/10W
R167	1-216-809-11	METAL CHIP	100	5%	1/10W
R171	1-216-817-11	METAL CHIP	470	5%	1/10W
R172	1-216-857-11	METAL CHIP	1M	5%	1/10W
R173	1-216-295-00	SHORT CHIP	0		
R181	1-216-809-11	METAL CHIP	100	5%	1/10W
R182	1-216-809-11	METAL CHIP	100	5%	1/10W
R191	1-216-864-11	SHORT CHIP	0		
R201	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R203	1-216-864-11	SHORT CHIP	0		
R204	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R205	1-216-864-11	SHORT CHIP	0		
R251	1-216-833-11	METAL CHIP	10K	5%	1/10W
R252	1-216-837-11	METAL CHIP	22K	5%	1/10W
R253	1-216-833-11	METAL CHIP	10K	5%	1/10W
R301	1-216-845-11	METAL CHIP	100K	5%	1/10W
R302	1-216-833-11	METAL CHIP	10K	5%	1/10W
R303	1-216-845-11	METAL CHIP	100K	5%	1/10W
R305	1-216-845-11	METAL CHIP	100K	5%	1/10W
R306	1-216-864-11	SHORT CHIP	0		
R307	1-216-833-11	METAL CHIP	10K	5%	1/10W
R313	1-216-813-11	METAL CHIP	220	5%	1/10W
R351	1-216-809-11	METAL CHIP	100	5%	1/10W
R352	1-216-809-11	METAL CHIP	100	5%	1/10W
R353	1-216-809-11	METAL CHIP	100	5%	1/10W
R354	1-216-809-11	METAL CHIP	100	5%	1/10W
R401	1-216-809-11	METAL CHIP	100	5%	1/10W
R402	1-216-809-11	METAL CHIP	100	5%	1/10W
R403	1-216-809-11	METAL CHIP	100	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-809-11	METAL CHIP	100	5%	1/10W
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-809-11	METAL CHIP	100	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W
		< VIBRATOR >			
X171	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			
**********					
	A-1099-020-A	ETHER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C501	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C503	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C504	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C505	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C507	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C508	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C509	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C510	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C511	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C512	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C513	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C514	1-135-787-11	CERAMIC CHIP	0.001uF	10%	2KV
C515	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C516	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C517	1-124-779-00	ELECT CHIP	10uF	20%	16V
C518	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C519	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C520	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C521	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C522	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C523	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C524	1-124-779-00	ELECT CHIP	10uF	20%	16V
C525	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C527	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C528	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C529	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C530	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C531	1-124-779-00	ELECT CHIP	10uF	20%	16V
C532	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C533	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C534	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C535	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C536	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C537	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C538	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C539	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C540	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C541	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C542	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C543	1-126-205-11	ELECT CHIP	47uF	20%	6.3V

Ref. No.	Part No.	Description			Remark
C544	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C545	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C546	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C547	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C548	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C549	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C550	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C551	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C552	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C553	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C554	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C555	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C556	1-124-779-00	ELECT CHIP	10uF	20%	16V
C557	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C558	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C559	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C562	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C563	1-124-779-00	ELECT CHIP	10uF	20%	16V
C564	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C565	1-124-779-00	ELECT CHIP	10uF	20%	16V
C566	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C567	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C568	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C569	1-124-779-00	ELECT CHIP	10uF	20%	16V
C571	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C572	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN501	1-573-829-11	CONNECTOR, BOARD TO BOARD 15P			
		< DIODE >			
D501	8-719-988-61	DIODE 1SS355TE-17			
D502	8-719-988-61	DIODE 1SS355TE-17			
D503	8-719-988-61	DIODE 1SS355TE-17			
D504	8-719-988-61	DIODE 1SS355TE-17			
D505	8-719-988-61	DIODE 1SS355TE-17			
D506	8-719-988-61	DIODE 1SS355TE-17			
D511	8-719-987-69	DIODE DAN217			
D512	8-719-987-69	DIODE DAN217			
D513	8-719-987-69	DIODE DAN217			
D514	8-719-987-69	DIODE DAN217			
		< EARTH TERMINAL >			
EP501	1-537-738-21	TERMINAL, GROUND			
		< FERRITE BEAD/JUMPER RESISTOR >			
FB502	1-216-864-11	SHORT CHIP	0		
FB503	1-216-864-11	SHORT CHIP	0		
FB504	1-216-864-11	SHORT CHIP	0		
FB505	1-216-864-11	SHORT CHIP	0		
FB506	1-414-618-21	FERRITE, EMI (SMD) (2012)			
FB507	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB508	1-216-864-11	SHORT CHIP	0		
FB509	1-216-864-11	SHORT CHIP	0		
FB510	1-216-864-11	SHORT CHIP	0		
FB511	1-414-618-21	FERRITE, EMI (SMD) (2012)			
FB512	1-500-245-11	FERRITE, EMI (SMD) (2012)			

Ref. No.	Part No.	Description			Remark
FB513	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB515	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB516	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB517	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB518	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB519	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB520	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB521	1-500-245-11	FERRITE, EMI (SMD) (2012)			
		< IC >			
IC501	6-706-606-01	IC KSZ8721BL			
IC502	6-706-610-01	IC ML7201TB			
IC503	6-703-791-01	IC MSM56V16160F-8T3FM1			
IC504	(Not supplied)	IC MBM29LV800TA-CZ1			
IC505	6-706-604-01	IC WM8728SEDS/R			
IC506	6-700-394-01	IC BA25BC0FP-E2			
		< JACK >			
J501	1-815-920-11	JACK, MODULAR (ETHERNET)			
		< RESISTOR >			
R501	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R502	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R503	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R504	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R505	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R506	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R507	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R508	1-218-823-11	METAL CHIP	100	0.5%	1/10W
R509	1-216-819-11	METAL CHIP	680	5%	1/10W
R510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R511	1-218-874-11	METAL CHIP	13K	0.5%	1/10W
R512	1-216-833-11	METAL CHIP	10K	5%	1/10W
R513	1-216-833-11	METAL CHIP	10K	5%	1/10W
R514	1-216-833-11	METAL CHIP	10K	5%	1/10W
R515	1-216-833-11	METAL CHIP	10K	5%	1/10W
R516	1-216-833-11	METAL CHIP	10K	5%	1/10W
R517	1-216-857-11	METAL CHIP	1M	5%	1/10W
R518	1-216-857-11	METAL CHIP	1M	5%	1/10W
R519	1-216-833-11	METAL CHIP	10K	5%	1/10W
R521	1-216-864-11	SHORT CHIP	0		
R522	1-216-809-11	METAL CHIP	100	5%	1/10W
R523	1-216-809-11	METAL CHIP	100	5%	1/10W
R524	1-216-809-11	METAL CHIP	100	5%	1/10W
R525	1-216-809-11	METAL CHIP	100	5%	1/10W
R526	1-216-805-11	METAL CHIP	47	5%	1/10W
R527	1-216-805-11	METAL CHIP	47	5%	1/10W
R528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R529	1-216-833-11	METAL CHIP	10K	5%	1/10W
R530	1-216-809-11	METAL CHIP	100	5%	1/10W
R531	1-216-864-11	SHORT CHIP	0		
R532	1-216-821-11	METAL CHIP	1K	5%	1/10W
R533	1-216-818-11	METAL CHIP	560	5%	1/10W
R534	1-218-874-11	METAL CHIP	13K	0.5%	1/10W
R537	1-216-821-11	METAL CHIP	1K	5%	1/10W
R538	1-216-809-11	METAL CHIP	100	5%	1/10W
R539	1-216-809-11	METAL CHIP	100	5%	1/10W

ETHER **FL** **FRONT PANEL**

Ref. No.	Part No.	Description			Remark
R540	1-216-809-11	METAL CHIP	100	5%	1/10W
R541	1-216-809-11	METAL CHIP	100	5%	1/10W
R542	1-216-797-11	METAL CHIP	10	5%	1/10W
R545	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R546	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R548	1-216-833-11	METAL CHIP	10K	5%	1/10W
R551	1-216-864-11	SHORT CHIP	0		
R552	1-216-833-11	METAL CHIP	10K	5%	1/10W
R553	1-216-833-11	METAL CHIP	10K	5%	1/10W
R554	1-216-864-11	SHORT CHIP	0		
R559	1-216-805-11	METAL CHIP	47	5%	1/10W
R561	1-216-805-11	METAL CHIP	47	5%	1/10W
R571	1-218-285-11	METAL CHIP	75	5%	1/10W
R572	1-218-285-11	METAL CHIP	75	5%	1/10W
R573	1-218-285-11	METAL CHIP	75	5%	1/10W
R574	1-218-285-11	METAL CHIP	75	5%	1/10W
		< TRANSFORMER >			
T501	1-443-224-11	TRANSFORMER, PULSE			
		< VIBRATOR >			
X501	1-795-807-11	VIBRATOR, CRYSTAL (25MHz)			
X502	1-795-692-11	QUARTZ CRYSTAL UNIT (24.576MHz)			
X503	1-795-535-21	VIBRATOR, CRYSTAL (11.2896Hz)			
**********					
	A-1099-012-A	FL BOARD, COMPLETE			
		*********			
		< CAPACITOR >			
C1001	1-162-306-11	CERAMIC	0.01uF	20%	16V
C1002	1-162-282-31	CERAMIC	100PF	10%	50V
C1003	1-162-282-31	CERAMIC	100PF	10%	50V
C1006	1-124-261-00	ELECT	10uF	20%	50V
C1007	1-124-222-91	ELECT	22uF	20%	6.3V
C1008	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C1011	1-162-306-11	CERAMIC	0.01uF	20%	16V
C1023	1-162-286-31	CERAMIC	220PF	10%	50V
C1024	1-162-286-31	CERAMIC	220PF	10%	50V
C1025	1-162-286-31	CERAMIC	220PF	10%	50V
C1026	1-162-286-31	CERAMIC	220PF	10%	50V
C1027	1-162-286-31	CERAMIC	220PF	10%	50V
C1028	1-162-286-31	CERAMIC	220PF	10%	50V
C1029	1-162-286-31	CERAMIC	220PF	10%	50V
C1030	1-162-286-31	CERAMIC	220PF	10%	50V
C1031	1-162-286-31	CERAMIC	220PF	10%	50V
C1032	1-162-286-31	CERAMIC	220PF	10%	50V
C1033	1-162-286-31	CERAMIC	220PF	10%	50V
C1034	1-162-286-31	CERAMIC	220PF	10%	50V
C1035	1-162-286-31	CERAMIC	220PF	10%	50V
C1036	1-162-286-31	CERAMIC	220PF	10%	50V
C1037	1-162-286-31	CERAMIC	220PF	10%	50V
C1038	1-162-286-31	CERAMIC	220PF	10%	50V
		< CONNECTOR >			
CN1001	1-784-735-11	CONNECTOR, FFC 13P			

Ref. No.	Part No.	Description			Remark
		< FLUORESCENT INDICATOR TUBE >			
FL1001	1-519-765-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC1001	6-706-605-01	IC M66005-0151AHP			
IC1011	6-600-309-01	IC RPM7240-H9			
		< TRANSISTOR >			
Q1001	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
		< RESISTOR >			
R1001	1-249-441-11	CARBON	100K	5%	1/4W
R1002	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1003	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1004	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1005	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1006	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1007	1-249-441-11	CARBON	100K	5%	1/4W
R1008	1-249-417-11	CARBON	1K	5%	1/4W
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		FRONT PANEL BOARD			
		**********			
		< CAPACITOR >			
C1202	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C1211	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C1212	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C1213	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C1214	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C1215	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C1251	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C1252	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
		< CONNECTOR >			
CN1201	1-793-580-11	CONNECTOR, FFC (LIF (NON-Z1F)) 15P			
CN1202	1-784-859-21	CONNECTOR, FFC (LIF (NON-ZIF)) 7P			
		< LED >			
D1201	6-501-146-01	LED QSMN-C186 (1)			
D1202	6-501-146-01	LED QSMN-C186 (2)			
D1203	6-501-146-01	LED QSMN-C186 (3)			
D1204	6-501-146-01	LED QSMN-C186 (4)			
D1205	6-501-146-01	LED QSMN-C186 (5)			
D1251	8-719-064-07	LED SML-310LTT86 (I/⏻)			
		< JUMPER RESISTOR >			
JR1201	1-216-296-11	SHORT CHIP	0		
JR1202	1-216-296-11	SHORT CHIP	0		
JR1203	1-216-296-11	SHORT CHIP	0		
JR1204	1-216-296-11	SHORT CHIP	0		
JR1205	1-216-296-11	SHORT CHIP	0		
JR1206	1-216-296-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q1201	8-729-027-43	TRANSISTOR	DTC114EKA-T146		

Ref. No.	Part No.	Description			Remark
Q1202	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q1203	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q1204	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q1205	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R1216	1-216-820-11	METAL CHIP	820	5%	1/10W
R1217	1-216-820-11	METAL CHIP	820	5%	1/10W
R1218	1-216-820-11	METAL CHIP	820	5%	1/10W
R1219	1-216-820-11	METAL CHIP	820	5%	1/10W
R1220	1-216-820-11	METAL CHIP	820	5%	1/10W
R1221	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1222	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1223	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1224	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1251	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1252	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R1261	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1262	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
		< SWITCH >			
S1201	1-771-105-11	SWITCH, TACTILE (1)			
S1202	1-771-105-11	SWITCH, TACTILE (2)			
S1203	1-771-105-11	SWITCH, TACTILE (3)			
S1204	1-771-105-11	SWITCH, TACTILE (4)			
S1205	1-771-105-11	SWITCH, TACTILE (5)			
S1251	1-771-105-11	SWITCH, TACTILE (I/⏻)			
S1252	1-771-105-11	SWITCH, TACTILE (FUNCTION)			
S1256	1-771-105-11	SWITCH, TACTILE (►)			
S1257	1-771-105-11	SWITCH, TACTILE (■)			
S1261	1-771-105-11	SWITCH, TACTILE (VOL.+)			
S1263	1-771-105-11	SWITCH, TACTILE (VOL.–)			
**********					
	A-1099-011-A	MAIN BOARD, COMPLETE (AEP, UK)			
	A-1106-721-A	MAIN BOARD, COMPLETE (US)			
		**********			
		< CAPACITOR >			
C600	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C601	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C602	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C603	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C604	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C605	1-124-261-00	ELECT	10uF	20%	50V
C606	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C607	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C608	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C609	1-115-456-21	DOUBLE LAYER	0.22F		5.5V
C610	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C611	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C612	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C613	1-126-963-11	ELECT	4.7uF	20%	50V
C614	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C615	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C616	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C617	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C618	1-124-589-11	ELECT	47uF	20%	16V
C620	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C621	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C622	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C623	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C624	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C626	1-126-916-11	ELECT	1000uF	20%	6.3V
C628	1-136-497-81	FILM	0.1uF	5%	50V
C629	1-126-934-11	ELECT	220uF	20%	16V
C630	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C631	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C632	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C633	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C634	1-126-767-11	ELECT	1000uF	20%	16V
C635	1-104-665-11	ELECT	100uF	20%	25V
C640	1-126-934-11	ELECT	220uF	20%	16V
C651	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C661	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C700	1-104-665-11	ELECT	100uF	20%	25V
C701	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C702	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C703	1-104-665-11	ELECT	100uF	20%	25V
C704	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C705	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C706	1-104-665-11	ELECT	100uF	20%	25V
C707	1-112-097-11	ELECT	2.2uF	20%	50V
C708	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C710	1-112-097-11	ELECT	2.2uF	20%	50V
C712	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C713	1-104-665-11	ELECT	100uF	20%	25V
C714	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C717	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C752	1-126-933-11	ELECT	100uF	20%	16V
C800	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C801	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C802	1-136-157-00	FILM	0.022uF	5%	50V
C803	1-136-157-00	FILM	0.022uF	5%	50V
C804	1-126-964-11	ELECT	10uF	20%	50V
C805	1-130-479-00	MYLAR	0.0047uF	5%	50V
C806	1-136-161-00	FILM	0.047uF	5%	50V
C807	1-136-157-00	FILM	0.022uF	5%	50V
C808	1-136-157-00	FILM	0.022uF	5%	50V
C809	1-124-261-00	ELECT	10uF	20%	50V
C810	1-124-261-00	ELECT	10uF	20%	50V
C811	1-124-261-00	ELECT	10uF	20%	50V
C812	1-124-261-00	ELECT	10uF	20%	50V
C813	1-124-584-00	ELECT	100uF	20%	10V
C814	1-124-261-00	ELECT	10uF	20%	50V
C815	1-126-964-11	ELECT	10uF	20%	50V
C816	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C817	1-112-084-11	ELECT	470uF	20%	16V
C818	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C860	1-126-160-11	ELECT	1uF	20%	50V
C900	1-126-964-11	ELECT	10uF	20%	50V
C901	1-124-261-00	ELECT	10uF	20%	50V
C902	1-136-157-00	FILM	0.022uF	5%	50V
C903	1-136-157-00	FILM	0.022uF	5%	50V
C904	1-130-479-00	MYLAR	0.0047uF	5%	50V
C905	1-136-161-00	FILM	0.047uF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C906	1-136-157-00	FILM	0.022uF	5%	50V
C907	1-136-157-00	FILM	0.022uF	5%	50V
C908	1-136-161-00	FILM	0.047uF	5%	50V
C909	1-126-964-11	ELECT	10uF	20%	50V
C910	1-124-261-00	ELECT	10uF	20%	50V
C911	1-124-261-00	ELECT	10uF	20%	50V
C912	1-124-261-00	ELECT	10uF	20%	50V
C913	1-124-261-00	ELECT	10uF	20%	50V
		< CONNECTOR >			
CN600	1-784-929-11	PIN, CONNECTOR 14P			
CN601	1-784-776-11	CONNECTOR, FFC 15P			
CN602	1-784-774-11	CONNECTOR, FFC 13P			
CN605	1-779-275-11	CONNECTOR, FFC (LIF (NON-ZIF)) 7P			
CN650	1-784-737-11	CONNECTOR, FFC 15P			
CN651	1-573-847-11	CONNECTOR, BOARD TO BOARD 15P			
CN700	1-779-564-21	CONNECTOR, FFC (LIF (NON-ZIF)) 27P			
CN751	1-568-828-11	CONNECTOR SOCKET 9P (US)			
CN751	1-568-830-11	CONNECTOR SOCKET 11P (AEP, UK)			
		< DIODE >			
D600	8-719-058-24	DIODE RB501V-40TE-17			
D601	8-719-988-61	DIODE 1SS355TE-17			
D602	8-719-988-61	DIODE 1SS355TE-17			
D603	8-719-988-61	DIODE 1SS355TE-17			
D604	8-719-988-61	DIODE 1SS355TE-17			
D605	8-719-988-61	DIODE 1SS355TE-17			
D606	8-719-988-61	DIODE 1SS355TE-17			
D607	8-719-988-61	DIODE 1SS355TE-17			
D608	8-719-988-61	DIODE 1SS355TE-17			
D609	8-719-988-61	DIODE 1SS355TE-17			
D613	8-719-210-33	DIODE EC10DS2			
D621	8-719-988-61	DIODE 1SS355TE-17			
D650	8-719-210-33	DIODE EC10DS2			
D651	8-719-210-33	DIODE EC10DS2			
		< EARTH TERMINAL >			
EPT701	1-537-738-21	TERMINAL, GROUND			
		< FERRITE BEAD/JUMPER RESISTOR >			
FB600	1-414-813-11	FERRITE, EMI (SMD) (2012)			
FB601	1-216-295-00	SHORT CHIP	0		
FB602	1-216-295-00	SHORT CHIP	0		
FB603	1-216-295-00	SHORT CHIP	0		
FB611	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB612	1-216-295-00	SHORT CHIP	0		
FB613	1-216-295-00	SHORT CHIP	0		
FB614	1-216-295-00	SHORT CHIP	0		
FB615	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB616	1-500-245-11	FERRITE, EMI (SMD) (2012)			
FB700	1-216-864-11	SHORT CHIP	0		
FB701	1-216-864-11	SHORT CHIP	0		
FB702	1-216-864-11	SHORT CHIP	0		
FB703	1-216-864-11	SHORT CHIP	0		
FB704	1-414-813-11	FERRITE, EMI (SMD) (2012)			
FB705	1-414-813-11	FERRITE, EMI (SMD) (2012)			
FB706	1-414-813-11	FERRITE, EMI (SMD) (2012)			
FB707	1-414-813-11	FERRITE, EMI (SMD) (2012)			

Ref. No.	Part No.	Description			Remark
FB750	1-216-864-11	SHORT CHIP	0		
FB751	1-216-864-11	SHORT CHIP	0		
FB801	1-216-864-11	SHORT CHIP	0		
FB802	1-216-864-11	SHORT CHIP	0		
FB803	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC601	6-804-471-01	IC uPD703261YGF-S06-JBT-A			
IC602	6-701-680-01	IC PST3629NR			
IC603	8-759-649-50	IC SN74AHC1GU04DCKR			
* IC604	6-702-184-01	IC NJM2870F38 (TE2)			
IC650	6-702-771-01	IC TA78033LS			
IC701	6-703-650-11	IC M61529FP-D60G			
		< COIL >			
L751	1-412-537-31	INDUCTOR	100uH		
		< TRANSISTOR >			
Q600	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q601	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q602	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q603	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q604	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q605	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q606	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q607	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q731	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q761	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q831	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q860	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q861	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q862	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R602	1-216-833-11	METAL CHIP	10K	5%	1/10W
R603	1-216-809-11	METAL CHIP	100	5%	1/10W
R604	1-216-821-11	METAL CHIP	1K	5%	1/10W
R605	1-216-809-11	METAL CHIP	100	5%	1/10W
R606	1-216-809-11	METAL CHIP	100	5%	1/10W
R607	1-216-821-11	METAL CHIP	1K	5%	1/10W
R609	1-216-821-11	METAL CHIP	1K	5%	1/10W
R610	1-216-809-11	METAL CHIP	100	5%	1/10W
R611	1-216-809-11	METAL CHIP	100	5%	1/10W
R612	1-216-809-11	METAL CHIP	100	5%	1/10W
R613	1-216-809-11	METAL CHIP	100	5%	1/10W
R614	1-216-809-11	METAL CHIP	100	5%	1/10W
R615	1-216-809-11	METAL CHIP	100	5%	1/10W
R618	1-216-853-11	METAL CHIP	470K	5%	1/10W
R619	1-216-805-11	METAL CHIP	47	5%	1/10W
R620	1-216-805-11	METAL CHIP	47	5%	1/10W
R622	1-216-841-11	METAL CHIP	47K	5%	1/10W
R623	1-216-841-11	METAL CHIP	47K	5%	1/10W
R624	1-216-809-11	METAL CHIP	100	5%	1/10W
R626	1-216-809-11	METAL CHIP	100	5%	1/10W
R627	1-216-821-11	METAL CHIP	1K	5%	1/10W
R628	1-216-821-11	METAL CHIP	1K	5%	1/10W
R629	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R630	1-216-809-11	METAL CHIP	100	5%	1/10W
R631	1-216-809-11	METAL CHIP	100	5%	1/10W
R632	1-216-833-11	METAL CHIP	10K	5%	1/10W
R633	1-216-813-11	METAL CHIP	220	5%	1/10W
R634	1-216-809-11	METAL CHIP	100	5%	1/10W
R635	1-216-809-11	METAL CHIP	100	5%	1/10W
R636	1-216-809-11	METAL CHIP	100	5%	1/10W
R637	1-216-809-11	METAL CHIP	100	5%	1/10W
R638	1-216-821-11	METAL CHIP	1K	5%	1/10W
R639	1-216-809-11	METAL CHIP	100	5%	1/10W
R640	1-216-821-11	METAL CHIP	1K	5%	1/10W
R641	1-216-841-11	METAL CHIP	47K	5%	1/10W
R642	1-216-833-11	METAL CHIP	10K	5%	1/10W
R644	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R645	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R646	1-216-821-11	METAL CHIP	1K	5%	1/10W (US)
R647	1-216-821-11	METAL CHIP	1K	5%	1/10W
R648	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R649	1-216-821-11	METAL CHIP	1K	5%	1/10W (US)
R650	1-216-809-11	METAL CHIP	100	5%	1/10W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W
R652	1-216-845-11	METAL CHIP	100K	5%	1/10W
R653	1-216-809-11	METAL CHIP	100	5%	1/10W
R654	1-216-809-11	METAL CHIP	100	5%	1/10W
R659	1-216-821-11	METAL CHIP	1K	5%	1/10W
R660	1-216-833-11	METAL CHIP	10K	5%	1/10W
R661	1-216-809-11	METAL CHIP	100	5%	1/10W
R662	1-216-809-11	METAL CHIP	100	5%	1/10W
R663	1-216-833-11	METAL CHIP	10K	5%	1/10W
R664	1-216-833-11	METAL CHIP	10K	5%	1/10W
R665	1-216-809-11	METAL CHIP	100	5%	1/10W
R666	1-216-817-11	METAL CHIP	470	5%	1/10W
R667	1-216-809-11	METAL CHIP	100	5%	1/10W
R668	1-216-833-11	METAL CHIP	10K	5%	1/10W
R669	1-216-841-11	METAL CHIP	47K	5%	1/10W
R670	1-216-809-11	METAL CHIP	100	5%	1/10W
R672	1-216-809-11	METAL CHIP	100	5%	1/10W
R673	1-216-845-11	METAL CHIP	100K	5%	1/10W
R674	1-216-845-11	METAL CHIP	100K	5%	1/10W
R675	1-216-809-11	METAL CHIP	100	5%	1/10W
R676	1-216-833-11	METAL CHIP	10K	5%	1/10W
R677	1-216-841-11	METAL CHIP	47K	5%	1/10W (US)
R679	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AEP, UK)
R679	1-216-837-11	METAL CHIP	22K	5%	1/10W (US)
R680	1-216-841-11	METAL CHIP	47K	5%	1/10W
R681	1-216-841-11	METAL CHIP	47K	5%	1/10W
R684	1-216-821-11	METAL CHIP	1K	5%	1/10W
R685	1-216-821-11	METAL CHIP	1K	5%	1/10W
R686	1-216-821-11	METAL CHIP	1K	5%	1/10W
R687	1-216-809-11	METAL CHIP	100	5%	1/10W
R688	1-216-809-11	METAL CHIP	100	5%	1/10W
R689	1-216-809-11	METAL CHIP	100	5%	1/10W
R690	1-216-809-11	METAL CHIP	100	5%	1/10W
R691	1-216-809-11	METAL CHIP	100	5%	1/10W
R697	1-216-809-11	METAL CHIP	100	5%	1/10W
R698	1-216-809-11	METAL CHIP	100	5%	1/10W
R699	1-216-809-11	METAL CHIP	100	5%	1/10W
R700	1-216-809-11	METAL CHIP	100	5%	1/10W
R701	1-216-821-11	METAL CHIP	1K	5%	1/10W
R702	1-216-821-11	METAL CHIP	1K	5%	1/10W
R703	1-216-809-11	METAL CHIP	100	5%	1/10W
R704	1-216-833-11	METAL CHIP	10K	5%	1/10W
R705	1-216-833-11	METAL CHIP	10K	5%	1/10W
R706	1-216-833-11	METAL CHIP	10K	5%	1/10W
R707	1-216-809-11	METAL CHIP	100	5%	1/10W
R710	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R711	1-216-809-11	METAL CHIP	100	5%	1/10W
R712	1-216-845-11	METAL CHIP	100K	5%	1/10W
R721	1-216-809-11	METAL CHIP	100	5%	1/10W
R722	1-216-845-11	METAL CHIP	100K	5%	1/10W
R730	1-216-821-11	METAL CHIP	1K	5%	1/10W
R731	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R732	1-216-821-11	METAL CHIP	1K	5%	1/10W
R733	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R734	1-216-833-11	METAL CHIP	10K	5%	1/10W
R735	1-216-833-11	METAL CHIP	10K	5%	1/10W
R750	1-216-845-11	METAL CHIP	100K	5%	1/10W
R751	1-216-821-11	METAL CHIP	1K	5%	1/10W
R752	1-216-845-11	METAL CHIP	100K	5%	1/10W
R753	1-216-821-11	METAL CHIP	1K	5%	1/10W
R800	1-216-809-11	METAL CHIP	100	5%	1/10W
R801	1-216-821-11	METAL CHIP	1K	5%	1/10W
R802	1-216-841-11	METAL CHIP	47K	5%	1/10W
R803	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R804	1-216-833-11	METAL CHIP	10K	5%	1/10W
R851	1-216-833-11	METAL CHIP	10K	5%	1/10W
R852	1-216-833-11	METAL CHIP	10K	5%	1/10W
R853	1-216-821-11	METAL CHIP	1K	5%	1/10W
R854	1-216-821-11	METAL CHIP	1K	5%	1/10W
R860	1-216-845-11	METAL CHIP	100K	5%	1/10W
R862	1-216-864-11	SHORT CHIP	0		
R900	1-216-833-11	METAL CHIP	10K	5%	1/10W
R901	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R902	1-216-841-11	METAL CHIP	47K	5%	1/10W
R903	1-216-833-11	METAL CHIP	10K	5%	1/10W
R950	1-216-821-11	METAL CHIP	1K	5%	1/10W
R951	1-216-821-11	METAL CHIP	1K	5%	1/10W
R952	1-216-833-11	METAL CHIP	10K	5%	1/10W
R953	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< VIBRATOR >			
X600	1-795-058-21	VIBRATOR, CERAMIC (5MHz)			

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PSAMP

Ref. No.	Part No.	Description			Remark
		PSAMP BOARD			
		**********			
	1-533-217-41	HOLDER, FUSE			
		< CAPACITOR >			
⚠C1	1-113-925-11	CERAMIC	0.01uF	20%	250V
C101	1-136-165-00	FILM	0.1uF	5%	50V
C102	1-136-165-00	FILM	0.1uF	5%	50V
C103	1-112-094-11	ELECT	2200uF	20%	35V
C104	1-112-094-11	ELECT	2200uF	20%	35V
C111	1-136-165-00	FILM	0.1uF	5%	50V
C112	1-136-165-00	FILM	0.1uF	5%	50V
C113	1-112-424-11	ELECT	4700uF	20%	25V
C114	1-119-772-11	ELECT	47uF	20%	35V
C115	1-124-234-00	ELECT	22uF	20%	16V
C116	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C117	1-119-772-11	ELECT	47uF	20%	35V
C118	1-124-234-00	ELECT	22uF	20%	16V
C119	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C121	1-119-772-11	ELECT	47uF	20%	35V
C122	1-124-234-00	ELECT	22uF	20%	16V
C123	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C124	1-119-772-11	ELECT	47uF	20%	35V
C125	1-124-234-00	ELECT	22uF	20%	16V
C126	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C131	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C132	1-126-968-11	ELECT	100uF	20%	50V
C133	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C134	1-124-261-00	ELECT	10uF	20%	50V
C201	1-131-704-31	FILM	1uF	5%	50V
C202	1-131-704-31	FILM	1uF	5%	50V
C203	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C204	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C221	1-126-963-11	ELECT	4.7uF	20%	50V
C223	1-162-956-11	CERAMIC CHIP	180PF	5%	50V
C224	1-126-947-11	ELECT	47uF	20%	35V
C225	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C226	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C229	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C230	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C231	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C232	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C243	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C251	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C261	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C262	1-126-933-11	ELECT	100uF	20%	16V
C263	1-126-967-11	ELECT	47uF	20%	50V
C264	1-126-916-11	ELECT	1000uF	20%	6.3V
C265	1-104-662-91	ELECT	22uF	20%	25V
C266	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C267	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C268	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C321	1-126-963-11	ELECT	4.7uF	20%	50V
C323	1-162-956-11	CERAMIC CHIP	180PF	5%	50V
C324	1-126-947-11	ELECT	47uF	20%	35V
C325	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C326	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C329	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C330	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C331	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C332	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C343	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C351	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
		< CONNECTOR >			
CN1	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
* CN3	1-564-321-21	PIN, CONNECTOR (3.96mm PITCH) 2P			
CN101	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN102	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
CN103	1-784-929-11	PIN, CONNECTOR 14P			
CN201	1-691-766-11	PLUG (MICRO CONNECTOR) 4P			
CN202	1-784-776-11	CONNECTOR, FFC 15P			
		< DIODE >			
D1	8-719-988-61	DIODE 1SS355TE-17			
D101	8-719-500-56	DIODE D3SBA20			
D111	8-719-975-85	DIODE ERB83-004			
D112	8-719-975-85	DIODE ERB83-004			
D113	8-719-975-85	DIODE ERB83-004			
D114	8-719-975-85	DIODE ERB83-004			
D131	6-500-522-11	DIODE 10EDB40-TA2B5			
D132	6-500-522-11	DIODE 10EDB40-TA2B5			
D133	6-500-522-11	DIODE 10EDB40-TA2B5			
D134	6-500-522-11	DIODE 10EDB40-TA2B5			
D135	8-719-083-71	DIODE UDZSTE-1730B			
D136	8-719-083-60	DIODE UDZSTE-174.7B			
D261	8-719-988-61	DIODE 1SS355TE-17			
D821	8-719-988-61	DIODE 1SS355TE-17			
		< EARTH TERMINAL >			
EP1	1-537-738-21	TERMINAL, GROUND (US)			
EP101	1-537-738-21	TERMINAL, GROUND			
EP201	1-537-738-21	TERMINAL, GROUND			
EP202	1-537-738-21	TERMINAL, GROUND			
		< FERRITE BEAD/JUMPER RESISTOR >			
FB111	1-410-397-21	FERRITE 1.1uH			
FB241	1-469-324-21	FERRITE, EMI (SMD) (2012)			
FB341	1-469-324-21	FERRITE, EMI (SMD) (2012)			
		< IC >			
IC111	6-703-550-01	IC TA7809LS			
IC112	8-759-071-48	IC TA7807S			
IC113	6-703-546-01	IC TA7804LS			
IC114	6-703-546-01	IC TA7804LS			
IC201	8-759-333-24	IC LM1876TF			
		< JACK >			
J201	1-794-702-11	JACK, HEADPHONE (ANALOG IN)			
J202	1-794-702-11	JACK, HEADPHONE (PHONES)			
		< LINE FILTER >			
⚠LF1	1-419-625-11	COIL, LINE FILTER			

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q1	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q131	8-729-209-60	TRANSISTOR	2SB1375		
Q261	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q262	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q263	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
		< RESISTOR >			
⚠R2	1-219-237-11	SOLID	3.3M	20%	1/2W (US)
R3	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
⚠R111	1-219-122-11	FUSIBLE	0.33	5%	1/4W
⚠R131	1-217-641-00	FUSIBLE	4.7	5%	1/4W
R132	1-249-421-11	CARBON	2.2K	5%	1/4W
R133	1-216-833-11	METAL CHIP	10K	5%	1/10W
R134	1-249-413-11	CARBON	470	5%	1/4W
R135	1-249-413-11	CARBON	470	5%	1/4W
R151	1-216-864-11	SHORT CHIP	0		
R152	1-216-864-11	SHORT CHIP	0		
R153	1-216-864-11	SHORT CHIP	0		
R155	1-216-864-11	SHORT CHIP	0		
R156	1-216-864-11	SHORT CHIP	0		
R157	1-216-864-11	SHORT CHIP	0		
R158	1-216-864-11	SHORT CHIP	0		
R221	1-216-821-11	METAL CHIP	1K	5%	1/10W
R222	1-216-839-11	METAL CHIP	33K	5%	1/10W
R223	1-216-821-11	METAL CHIP	1K	5%	1/10W
R224	1-216-838-11	METAL CHIP	27K	5%	1/10W
R225	1-216-797-11	METAL CHIP	10	5%	1/10W
R226	1-216-842-11	METAL CHIP	56K	5%	1/10W
R227	1-260-320-11	CARBON	220	5%	1/2W
R229	1-216-797-11	METAL CHIP	10	5%	1/10W
R251	1-216-821-11	METAL CHIP	1K	5%	1/10W
R252	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R261	1-216-842-11	METAL CHIP	56K	5%	1/10W
R262	1-216-845-11	METAL CHIP	100K	5%	1/10W
R263	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R264	1-216-837-11	METAL CHIP	22K	5%	1/10W
R321	1-216-821-11	METAL CHIP	1K	5%	1/10W
R322	1-216-839-11	METAL CHIP	33K	5%	1/10W
R323	1-216-821-11	METAL CHIP	1K	5%	1/10W
R324	1-216-838-11	METAL CHIP	27K	5%	1/10W
R325	1-216-797-11	METAL CHIP	10	5%	1/10W
R326	1-216-841-11	METAL CHIP	47K	5%	1/10W
R327	1-260-320-11	CARBON	220	5%	1/2W
R329	1-216-797-11	METAL CHIP	10	5%	1/10W
R351	1-216-821-11	METAL CHIP	1K	5%	1/10W
R352	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R823	1-260-319-51	CARBON	180	5%	1/2W
		< RELAY >			
⚠RY1	1-755-467-11	RELAY (POWER)			
RY201	1-755-170-11	RELAY			

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Ref. No.	Part No.	Description			Remark
		SUBPS BOARD			
		**********			
		< CONNECTOR >			
CN5	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
CN115	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< TRANSFORMER >			
⚠T2	1-437-672-21	TRANSFORMER, POWER (US)			
⚠T2	1-437-673-21	TRANSFORMER, POWER (AEP, UK)			

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		TOP PANEL BOARD			
		**********			
		< CAPACITOR >			
C1272	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C1275	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
		< CONNECTOR >			
CN1271	1-784-859-21	CONNECTOR, FFC (LIF (NON-ZIF)) 7P			
		< LED >			
D1272	6-501-146-01	LED QSMN-C186 (NETWORK)			
		< JUMPER RESISTOR >			
JL1272	1-216-864-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q1272	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
		< RESISTOR >			
R1275	1-216-820-11	METAL CHIP	820	5%	1/10W
R1277	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
		< SWITCH >			
S1271	1-771-105-11	SWITCH, TACTILE (NETWORK)			

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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
201	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
⚠203	1-777-071-83	CORD, POWER (AEP, UK)	
⚠203	1-783-820-11	CORD, POWER (US)	
204	1-693-669-11	TUNER PACK (TM-10CE) (AEP, UK)	
204	1-693-672-11	TUNER PACK (TM-10U) (US)	
253	1-469-854-11	CORE, FERRITE (AEP, UK)	
⚠301	8-820-221-01	OPTICAL PICK-UP BLOCK KSM-213EDP/C2NP (Including spindle motor (M101), sled motor (M102))	
302	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
⚠F1	1-533-451-12	FUSE, GLASS TUBE (DIA. 5) (3.15A/125V) (US)	
⚠F1	1-533-470-12	FUSE, GLASS TUBE (DIA. 5) (T3.15A/250V)	(AEP, UK)
⚠F101	1-533-449-12	FUSE, GLASS TUBE (DIA. 5) (2A/125V) (US)	
⚠F101	1-533-467-12	FUSE, GLASS TUBE (DIA. 5) (T1.6A/250V)	(AEP, UK)
⚠F102	1-533-449-12	FUSE, GLASS TUBE (DIA. 5) (2A/125V) (US)	
⚠F102	1-533-467-12	FUSE, GLASS TUBE (DIA. 5) (T1.6A/250V)	(AEP, UK)
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S601	1-692-960-11	SWITCH, PUSH (1 KEY) (DISC LID OPEN DETECT)	
SP101	1-826-072-11	LOUDSPEAKER (2.5 cm) (Rear Tweeter) (L-CH)	
SP102	1-826-071-11	LOUDSPEAKER (9 cm) (Woofer) (L-CH)	
SP103	1-826-072-11	LOUDSPEAKER (2.5 cm) (Front Tweeter) (L-CH)	
SP201	1-826-072-11	LOUDSPEAKER (2.5 cm) (Rear Tweeter) (R-CH)	
SP202	1-826-071-11	LOUDSPEAKER (9 cm) (Woofer) (R-CH)	
SP203	1-826-072-11	LOUDSPEAKER (2.5 cm) (Front Tweeter) (R-CH)	
⚠T1	1-443-694-11	TRANSFORMER, POWER (AEP, UK)	
⚠T1	1-443-695-11	TRANSFORMER, POWER (US)	
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		ACCESSORIES	
		**********	
	1-478-814-11	COMMANDER, STANDARD (RM-ANP002)	
	1-754-059-12	ANTENNA, LOOP (AM)	
⚠	1-770-019-51	ADAPTOR, CONVERSION PLUG (UK)	
	1-793-184-23	CONNECTOR (F TYPE ADAPTOR) (FM)	
	1-827-478-11	CORD, CONNECTION (LAN CABLE)	
	2-318-581-11	MANUAL, INSTRUCTION (ENGLISH)	
	2-318-581-21	MANUAL, INSTRUCTION (FRENCH, SPANISH)	(AEP)
	2-318-581-31	MANUAL, INSTRUCTION (GERMAN, DUTCH, ITALIAN) (AEP)	
	2-318-581-41	MANUAL, INSTRUCTION (SWEDISH, POLISH)	(AEP)
	2-592-381-11	MANUAL, INSTRUCTION (DANISH, FINNISH)	(AEP)
	2-592-381-21	MANUAL, INSTRUCTION (PORTUGUESE) (AEP)	
	2-592-381-31	MANUAL, INSTRUCTION (GREEK) (AEP)	
	2-592-381-41	MANUAL, INSTRUCTION (HUNGARIAN, CZECH) (AEP)	
	2-592-381-51	MANUAL, INSTRUCTION (SLOVAKIAN) (AEP)	
	X-2059-876-1	CD-ROM ASSY (M-crew Server)	

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005.05	New
1.1	2005.08	Addition of detail of “5.bdt ERR RATE mode” in the Test Mode (SPM-05056)